

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.





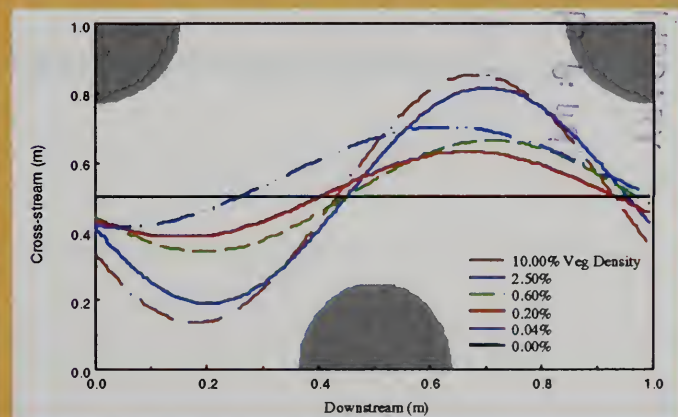
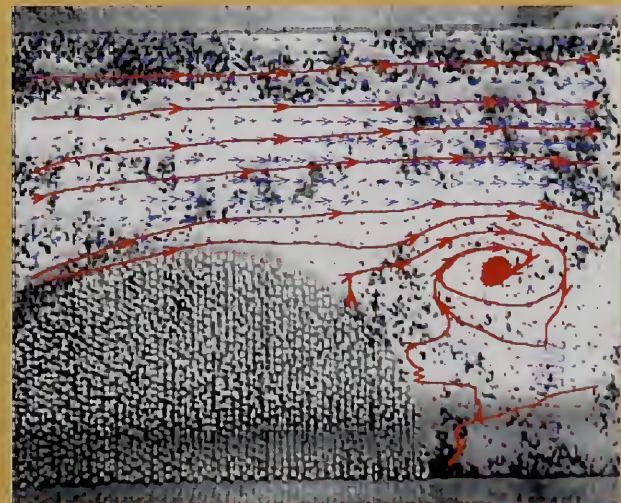
United States  
Department of  
Agriculture



Agricultural  
Research  
Service

Channel & Watershed Processes Research Unit  
National Sedimentation Laboratory  
Oxford, Mississippi 38655

## Restoration of Degraded Stream Corridors using Vegetation: An Experimental Study



By Taner Pirim, Sean J. Bennett, and Brian D. Barkdoll

Research Report No. 14

March 2000





## Table of Contents

<b>ABSTRACT.....</b>	<b>4</b>
<b>Acknowledgments.....</b>	<b>6</b>
<b>List of Figures.....</b>	<b>7</b>
<b>List of Tables .....</b>	<b>10</b>
<b>1 INTRODUCTION .....</b>	<b>11</b>
<b>2 LITERATURE REVIEW.....</b>	<b>19</b>
2.1 Introduction .....	19
2.2 Hydraulics and Velocity Distributions in the Vegetated Zones .....	20
2.3 Drag Coefficient within Vegetated Zones.....	23
2.4 Meander Wavelength .....	24
2.5 Sediment Transport within the Vegetation.....	27
<b>3 EXPERIMENTAL EQUIPMENT, SETUP AND PROCEDURE.....</b>	<b>31</b>
3.1 General.....	31
3.2 Experimental Equipment.....	31
3.3 Experimental Design.....	33
3.4 Experimental Procedure .....	41
3.4.1 PIV Technique .....	41
3.4.2 Processing .....	41
<b>4 ANALYSIS AND RESULTS.....</b>	<b>48</b>



4.1 General.....	48
4.2 Time Averaged Flow Vectors .....	48
4.3 Vegetated Zone Analyses.....	55
4.4 Instantaneous Flow Vectors .....	58
4.5 Graphical Results.....	65
<b>5 SUMMARY AND CONCLUSIONS.....</b>	<b>75</b>
<b>BIBLIOGRAPHY .....</b>	<b>77</b>
APPENDIX A: FORTRAN CODE TO AVERAGE DATA.....	83
APPENDIX B: FORTRAN CODE TO CALCULATE SINUOSITY.....	86
APPENDIX C: AVERAGED RAW DATA.....	89
APPENDIX D: DEPTH DATA.....	174



## ABSTRACT

River restoration is one of the most important and popular advances in river engineering within the last ten years. Stream corridors are complex ecosystems, which include plants, animals, land and the network of streams within them. To alleviate flooding in naturally meandering rivers and streams, both local and federal agencies artificially straightened the rivers, thereby causing increased flow velocity and subsequent bed degradation. This bed degradation, in turn, caused highly incised channels and therefore increased bank failure. In addition to increased bank failure, the homogeneous nature of the straightened channel geometry decreased ecological habitat, which needs a diverse environment in which to thrive. The channel aesthetics also were disturbed. One method of restoring meanders is the introduction of vegetation in alternating locations to divert the flow and cause sediment deposition. Various aspects of stream restoration have been studied but the effect of vegetation density on meander potential is not well understood.

In this study, a laboratory experiment was performed in a flume with simulated alternating vegetation zones. The density of the vegetation zones were altered while all other flow characteristics were kept constant. Particle Image Velocimetry (PIV) was used to determine surface flow characteristics. PIV measurements revealed that as vegetation density increases, the following flow parameters related to potential meandering increase: average thalweg velocity, flow circulation downstream of the vegetation zone, flow sinuosity, reattachment lengths, flow depth, and resistance. The average flow velocity decreased both inside and out of the vegetation zone. This study





established a methodology to induce sinuosity in straight, degraded channels using vegetation and determined that placing roughness elements that simulate natural vegetation can significantly alter the flow direction.



## **Acknowledgments**

This report represents the completed M.S. thesis of Taner Pirim, Department of Civil Engineering, University of Mississippi, University, MS, conferred in December 1999, and it is reproduced here verbatim. Taner Pirim conducted this work under the direct supervision of Sean J. Bennett, USDA-ARS National Sedimentation Laboratory, Oxford, MS and Brian D. Barkdoll, Department of Civil Engineering, University of Mississippi. Brian Barkdoll, Richard Major, and Shyam Prasad served on Taner's thesis committee. We gratefully acknowledge the assistance of J. Horton, E. Langendoen, M. Muste, P. Seay, A. Wilson, and D. Wren during various stages of this work.





## **List of Figures**

Figure 1-1. Plan view of a meandering section of the Yalobusha River in Mississippi.	
Source: Shields, 1998, USDA-ARS-NSL.....	12
Figure 1-2. View of a straight channel in Mississippi (a) general plan view; (b) closer view. Source: Shields, 1998, USDA-ARS-NSL. ....	13
Figure 1-3. A close-up view of a deeply incised straight channel with bank failure.	
Source: Shields, 1998, USDA-ARS-NSL.....	15
Figure 1-4. Evolution of incised channel from initial incision and widening to aggradation and eventually stability (Schumm, 1999). ....	16
Figure 1-5. The cross-section of (a) non-vegetated incised stream with unstable bank; (b) vegetated incised stream. ....	17
Figure 2-1. The cross-section view of a river with flood plain and banks. ....	20
Figure 3-1. (a) Side and (b) Plan, view of the recirculating flume with the simulated vegetation zones. ....	32
Figure 3-2. (a) Camera rail setup on the flume; (b) The point gage system on the flume.	33
Figure 3-3. A plan view section of the flume with vegetation areas.....	36
Figure 3-4. Plan view of the instantaneous flow view of the vegetated sections with density of (a) 10%; (b) 2.5%; (c) 0.6%; (d) 0.2%; (e) 0.04%; (f) 0.0%. These percentages are defined in the text. Flow is from left to right. ....	37
Figure 3-5. Close-up schematic of dowel configuration for vegetation densities (a) 10%; (b) 2.5%. Percentages are defined in the text.....	39



Figure 3-6. Schematic figure of (a) vegetation zone with seed particles at time 1 and (b) the interrogation area showing particles at time 1 (open circles) particles at time 2 (solid circles), and the resultant velocity vector.....	43
Figure 3-7. The grid scale image of the vegetated zone section. ....	44
Figure 3-8. An example of velocity vectors obtained by PIV (a) The first image of the pair with frame number #12:18:17; (b) The second image of the pair with frame number #12:18:18; (c) The velocity vector plot of the cross-correlated images of frame #12:18:17 and #12:18:18.....	46
Figure 4-1. Plan view of (a) time averaged velocity vectors (b) streamlines of the flow vectors for a vegetation density of 10%.....	49
Figure 4-2. Plan view of (a) time averaged velocity vectors (b) streamlines of the flow vectors for a vegetation density of 2.5%.....	50
Figure 4-3. Plan view of (a) time averaged velocity vectors (b) streamlines of the flow vectors for a vegetation density of 0.6%.....	51
Figure 4-4. Plan view of (a) time averaged velocity vectors (b) streamlines of the flow vectors for a vegetation density of 0.2%.....	52
Figure 4-5. Plan view of (a) time averaged velocity vectors (b) streamlines of the flow vectors for a vegetation density of 0.04%.....	53
Figure 4-6. Plan view of (a) time averaged velocity vectors (b) streamlines of the flow vectors for a vegetation density of 0.0%.....	54
Figure 4-7. Time averaged vector flows for the vegetation densities of (a) 2.5%; (b) 0.6%; (c) 0.2%; (d) 0.04%; (e) 0.0%. ....	55



Figure 4-8. Instantaneous flow vectors for vegetation densities of (a) 10%; (b) 2.5%; (c) 0.6%; (d) 0.2%; (e) 0.04%; (f) 0.0%.....	59
Figure 4-9. Instantaneous flow paths for vegetation densities of (a) 10%; (b) 2.5%; (c) 0.6%; (d) 0.2%; (e) 0.04%; (f) 0.0%.....	62
Figure 4-10. Spatially averaged flow depth as a function of vegetation density .....	65
Figure 4-11. Spatially averaged flow velocity as a function of vegetation density. ....	66
Figure 4-12. Schematic drawing of the velocity profiles for a section of flume. ....	67
Figure 4-13. Path of maximum velocity around the vegetated zones. ....	68
Figure 4-14. Thalweg sinuosity as a function of vegetation density.....	69
Figure 4-15. Reattachment Ratio as a function of vegetation density.....	70
Figure 4-16. Schematic of shedding vortices after the vegetation zone.....	70
Figure 4-17. Spatially averaged flow velocity within the vegetation zone as a function of vegetation density within the vegetation zone. ....	71
Figure 4-18. Slope regression plots as functions of depth and distance.....	72
Figure 4-19. Drag coefficient change as a function of vegetation density. ....	73





## **List of Tables**

<b>Table 2-1. Formulae Proposed by Different Scientists for Predicting Meander</b>	
Wavelength from Laboratory Data.....	26
<b>Table 3-1. The Flow Characteristics of the Experiment.....</b>	
34	
<b>Table 3-2. Predicted meander wavelength calculated using different empirical</b>	
relationships and the chosen flow parameters discussed in the text.....	35
<b>Table 4-1. The Calculated Flow Characteristics of Vegetation Densities.....</b>	
74	



# 1 INTRODUCTION

River restoration is one of the most important and popular advances in river engineering within the last ten years. Restoration is the reestablishment of the structure and function of ecosystems. The restoration process reestablishes the general structure, function, and dynamic but self-sustaining behavior of the ecosystem. Stream restoration aims to return aquatic and riparian ecosystems to a former natural condition.

Stream corridors are complex ecosystems, which include plants, animals, land and the network of streams within them. Since the United States of America (USA) has more than 3.5 million miles of total rivers and streams, rivers and streams have corridors of great economic, social, cultural, and environmental value. The form of the hydraulic and transport processes of streams and rivers normally are in a dynamic equilibrium with their surroundings. The stream has adjusted itself to the point where neither net erosion nor net deposition occurs. As such, most sand-bedded streams have a meandering platform (Figure 1-1).







**Figure 1-1. Plan view of a meandering section of the Yalobusha River in Mississippi.**  
**Source: Shields, 1998, USDA-ARS-NSL.**

Channel erosion is a huge problem that draws much attention of scientists interested in this subject. Erosion in channels causes two main problems: loss of habitat resources and the aesthetics of rivers. Channel erosion is a great concern in North-Central Mississippi as well as in the Midwestern United States. Many of the streams in North-Central Mississippi have undergone severe instability since European settlement in the 1830s, leading to disruption of the fluvial system and severe impacts on local communities, farmers and ecological habitats. Increased flooding occurred due to the increased runoff caused by deforestation of the land while being settled. The response of the US Army Corps of Engineers was to channelize the rivers.

To alleviate flooding in naturally meandering rivers and streams, both local and federal agencies artificially straightened the rivers. These engineering practices disrupted





the dynamic equilibrium of the streams and rivers, and the streams adjusted their form and hydrology accordingly. This straightening reduced the river length, and thereby increased the bed slope and water velocity. The effect of the increased bed slope and velocity was an increase in sediment transport rate coupled with a degradation of the riverbed (Figure 1-2).



(a)

**Figure 1-2. View of a straight channel in Mississippi (a) general plan view; (b) closer view. Source: Shields, 1998, USDA-ARS-NSL.**







(b)

Figure 1-2. (continued)

This bed degradation, in turn, caused highly incised channels and therefore increased bank failure (Figure 1-3). In addition to increased bank failure, the homogeneous nature of the straightened channel geometry decreased ecological habitat. Aquatic species need a diverse environment to thrive. In addition, channel aesthetics were disturbed.



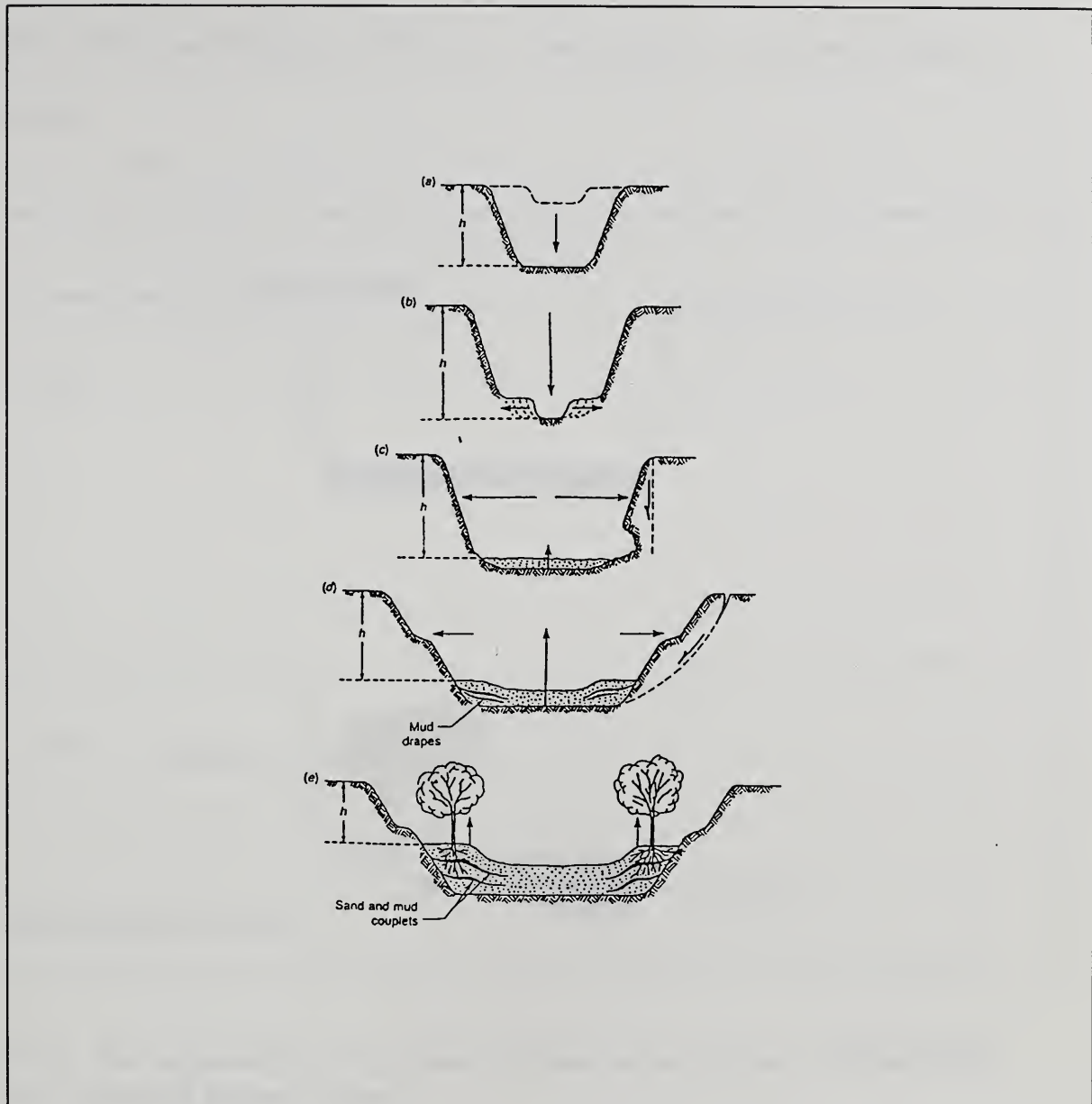




**Figure 1-3. A close-up view of a deeply incised straight channel with bank failure.**  
**Source: Shields, 1998, USDA-ARS-NSL.**

Channel incision is a major concern because it disrupts transportation, destroys agricultural land, threatens adjacent structures, drastically alters the environmental conditions, and produces sediment that causes further problems. Once incision has commenced, it is unlikely that erosion will cease naturally until the channel has progressed through several stages (Figure 1-4) (Schumm, 1999).





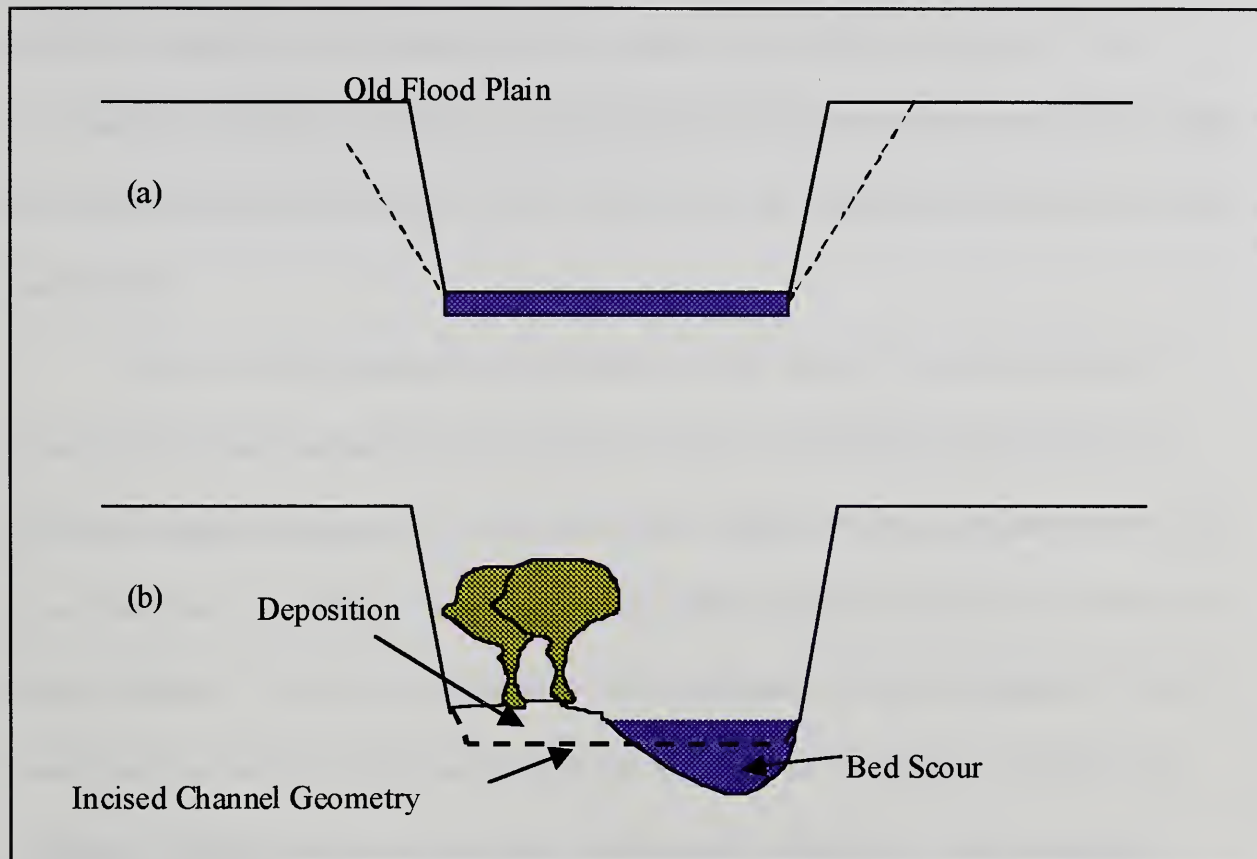
**Figure 1-4. Evolution of incised channel from initial incision and widening to aggradation and eventually stability (Schumm, 1999).**

By introducing vegetation to a highly incised channel, flow is decelerated in the vegetation zone and sediment deposition occurs. Flow is also accelerated in the non-vegetated zone and bed scour occurs. By using a staggered arrangement of vegetation , i.e. spaced like meanders, streams can attain a meandering or sinuous pattern through its own adjustment. Habitat diversity increases because of the presence of riparian





vegetation, riffles, and deep pools. Moreover, stream aesthetics are greatly improved (Figure 1-5).



**Figure 1-5. The cross-section of (a) non-vegetated incised stream with unstable bank; (b) vegetated incised stream.**

In-stream vegetation decreases the magnitude of the flow velocity by increasing depth or decreasing the slope of the water surface. In order to restore the channel to its natural meandering state, engineers have used both structural and non-structural methods. Structural methods include concrete blocks and spur dikes.

In contrast, non-structural methods are viewed to be more ecologically sound and natural. This is due to the fact that non-structural refers to placing some vegetation (roughness element) at alternating locations along the river to cause the flow to be



diverted towards the opposite bank to begin the necessary scour to induce meandering. Vegetation has the additional benefits of increasing bank stability, reducing erosion and turbidity, providing aquatic and terrestrial wildlife, attenuating floods, filtering pollutants carried by runoff, and decreasing the flow velocity and sediment transport. Once meandering is initiated, the deflected primary flow will cause erosion on the outer bank and deposition on the inner bank. This is the commonly understood meander migration mechanism.

The aim of this research is to establish a methodology to induce sinuosity in straight, degraded channels using vegetation (stream restoration) and to find out if placing roughness elements that simulate natural vegetation can significantly alter the flow direction. This altered flow direction has direct implications for river restoration design criteria. Laboratory experiments were performed in which roughness elements were placed at locations alternating between each side of the flume. The effect of vegetation density on the water surface flow pattern, streamlines, flow resistance, vegetation zone velocity, sinuosity, and reattachment length was investigated using Particle Image Velocimetry techniques. The discharge, longitudinal bed slope, channel cross section and all other pertinent flow parameters were kept constant. It is hoped that the results of the present study are useful as preliminary guidelines for practitioners in re-introducing meanders into rivers and streams where appropriate.





## 2 LITERATURE REVIEW

### 2.1 Introduction

Scientists have studied the flow of water through vegetation during the past 50 years. Diverse practical interests motivated most of the early work resulting in mainly empirical and observational research. Yet the interaction between flow and vegetation, in particular the turbulent characteristics of the flow, remain poorly understood.

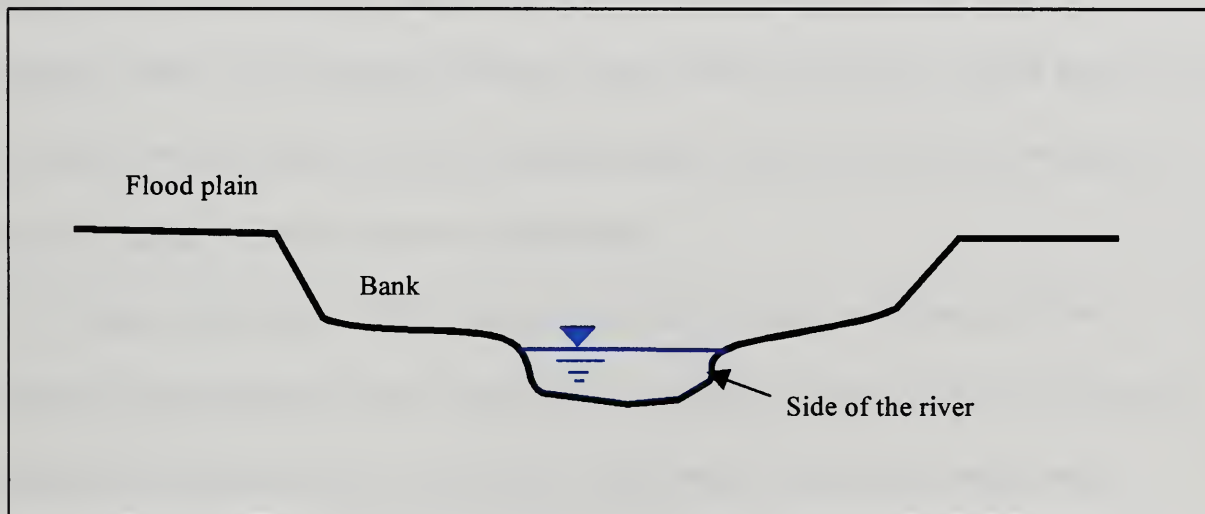
In this chapter, a brief review of previous work on flow and vegetation is presented, and will focus on why such studies were initiated and their main conclusion. As mentioned previously, scientists are interested in restoring degraded stream corridors with vegetation that has the potential of returning the stream corridor toward a more natural state. The costly and ecologically harmful procedures of removing channel vegetation and destroying wetlands, common practice in channeling programs, have been replaced by new approaches that recognize the considerable environmental benefits that vegetation brings to an aquatic ecosystem.

Most past research on vegetation in open channels has focussed on the effects of woody vegetation and woody debris on flow and flow resistance coefficients such as Manning's roughness coefficient. Few researchers have examined the effect of vegetative density, the interaction of vegetation spacing, resistance estimation by using roughness height in vegetated areas, and design issues of vegetation on flow properties in streams and rivers.



There are three zones where vegetation normally occurs; along the side of the river, on the banks, and on the riparian wetlands or on the flood plains (Figure 2-1). This review is divided into four components.

- Hydraulics and velocity distributions in the vegetated zones
- Drag coefficient within vegetated zones
- Meander wavelength
- Sediment transport within vegetated zones



**Figure 2-1. The cross-section view of a river with flood plain and banks.**

## 2.2 Hydraulics and Velocity Distributions in the Vegetated Zones

Most previous studies have focused on the effect of vegetation on Manning's roughness coefficient, which can be used to predict the normal depth or velocity. A



deficiency in past studies is that good results were obtained for a certain vegetation but these results could not be applied to flow environments with different vegetation.

Tsujimoto, Okada and Kitamura (1990) simulated flow over flexible vegetation. Most natural vegetation is flexible, thus it will deform, vibrate, and sometimes sway coherently in the flow of water. This situation affects the turbulence characteristics of the flow over a vegetated bed. They found that the induced shear velocity in the vegetated zone is higher in the flexible case than the rigid case. In addition, Tsujimoto et al. (1992) measured the turbulence characteristics of steady uniform flow in laboratory flumes with cylinders of the same height, diameter, and spacing to simulate flow over rigid vegetation. They found that the turbulence characteristics in the free surface region above the canopy are little affected by the vegetation layer, while the flow in the vegetation layer is strongly affected by faster surface flows.

Lopez and Garcia (1996) presented the shear stresses at the bed and flow velocities both within and above a simulated canopy in an open channel flow by using nonflexible wooden dowels in a laboratory experiment. The velocity values were obtained for flow above the canopy and within the canopy where all flows were subcritical, with Reynolds numbers ranging from 57,000 to 260,000. The research demonstrated that the shear stress statistics at the bottom are similar to those in the smooth-bed open channels, but bottom shear stresses were not well correlated to turbulent fluctuations in velocity.

Since vegetation is a means for providing stabilization of banks, Dunn et al. (1996a,b) worked on the effect of vegetation channel hydraulics by using boundary layer theory. He came up with a formula that estimates the variation in flow depth in the



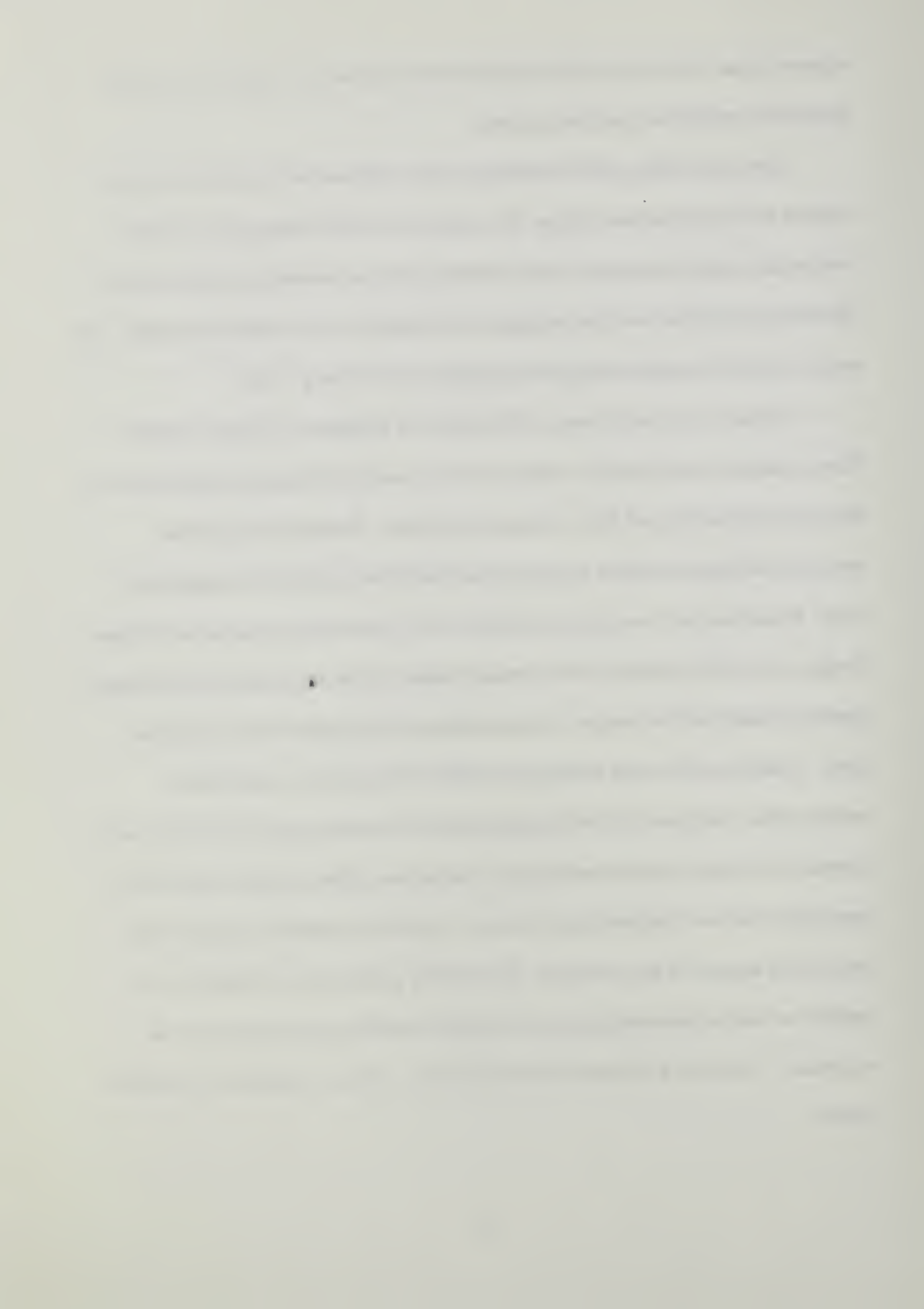


vegetated zone. The effects of the vegetation density on the flow depth and regime for normal flow conditions were also analyzed.

Simoes and Wang (1997) formulated a three-dimensional model for compound channels with vegetated flood plains. This model was used to simulate flow within a symmetrical compound channel where the flood plain was covered by rigid vegetation. The effects of vegetation on bed roughness and turbulence were modeled separately. The results of these simulations compared favorably with laboratory values.

Hodges, Diplas and Younos (1998) examined vegetation in riparian wetlands. They examined velocity profiles, resistance to flow, and the turbulence characteristics of flows through partially and fully submerged vegetation. Wetlands have positive environmental impacts such as trapping agrochemical and sediment from agricultural areas. Recent interest in wetlands has focused on the preservation of aquatic ecosystems. Hodges et al. (1998) obtained velocity measurements in laboratory models that simulated riparian wetlands with submerged and non-submerged vegetation cases at a constant slope. Velocity profiles were obtained for different diameters of vertical dowel configurations. Hodges et al. (1998) demonstrated that vertical velocity within vegetation increases with height from the bed because of the adverse effect of shear velocity. The same experiment was performed on a two-layer vegetative system by using short and long dowels together in the same flow. The velocity profile can be divided into two regions: an inner region submerged in the vegetation, and an outer region above the vegetation. The point of inflection between these two varies as a function of vegetation height.





Fairbanks and Diplas (1998) also studied the turbulence characteristics of flows through partially and fully submerged vegetation. Since turbulence characteristics of the flow influence the velocity distribution, bed shear stress, sediment movement, and contaminant transport (Nezu and Nakagawa, 1993), research on this subject will improve the ability to model flow and pollutant transport through vegetation. The main result from this research is that the turbulence intensities are highest directly behind a dowel and diminish with increased distance downstream in both partially and fully submerged vegetation.

### 2.3 Drag Coefficient within Vegetated Zones

Vegetative linings constitute an effective technology for reducing bank erosion. They influence flow resistance and affect transport processes by reducing the entrainment capability of sediment into suspension and by altering the mixing properties of the stream. The ability of plants to absorb momentum by form drag plays an important role in the modeling of flow and it is known as the drag coefficient.

Li and Shen (1973) worked on the effect of tall vegetation on flow and sediment transport process. Vegetation is an effective method to reduce sediment yield by protecting soil from direct rainfall impact, reducing soil resistance, enhancing infiltration, and decreasing surface runoff. They ignore the effects of tree leaves and branches in order to simplify the case. Li and Shen used a wake superposition model and the experimental results of Petryk (1969) to predict a bulk drag coefficient in a channel with emerging cylinders where the Froude number was low. They numerically studied the



effects of cylinder spacing and pattern on the bulk drag coefficient. Shen and Li found that the bulk drag coefficient decreased slightly with increased spacing, but at greater than eight-diameter spacing, the drag coefficient remained constant.

Reid and Whitaker (1976) worked on the wind-driven flow of water influenced by a vegetative canopy. They estimated bulk drag coefficients by analyzing measurements of Manning's roughness coefficient as a function of roughness spacing for different mean depths, and used this value in all applications of their numerical model, which considered submerged rigid cylinders. The reason for this research was the need for more realistic simulation of the wind-driven canopy flow next to flooded marshes.

Dunn, Lopez and Garcia (1996b) experimentally investigated the flow structure and drag coefficients in an open channel with both rigid and flexible simulated vegetation under uniform flow conditions. Two separate vertical variations of the drag coefficient were found depending on the deflection of the flexible cylinders.

## 2.4 Meander Wavelength

Meander wavelength predictions involve many aspects. Because of their complexity and inconsistent boundary conditions, finding a relation for meander wavelength is challenging.

Fredsoe (1977) provides an analytical analysis for the determination of the degree of meandering and braiding within alluvial rivers. He analyzed the flow with a two-dimensional model in terms of stability theory and compared the analysis with data from natural rivers and experimental channels. The agreement was satisfactory.



Ikeda (1982) tested many proposed theoretical and empirical formulae against laboratory data along with new formulations of meander wavelength with Froude numbers (  $Fr = u/(gd)^{0.5}$  , where  $u$  is mean flow velocity,  $g$  is gravitational acceleration and  $d$  is mean flow depth ) greater than or equal to 0.8. Table 2-1. lists various meander wavelength,  $\lambda$ , and hydraulic radius,  $R$ , formulae in terms of Froude number, flow discharge,  $Q$ , and cross-sectional area,  $A$ .





**Table 2-1. Formulae Proposed by Different Scientists for Predicting Meander Wavelength from Laboratory Data.**

Data Source	Regression Equation
Ackers and Charlton (1970)	$\lambda / \sqrt{A} = 49.53 Fr^{0.427}$ $R = 0.17 Q^{0.498}$ $\lambda = 37.79 Q^{0.476}$
Khan (1971)	$\lambda / \sqrt{A} = 52.10 Fr^{0.462}$ $R = 0.07 Q^{0.343}$ $\lambda = 32.59 Q^{0.254}$
Edgar (1973)	$\lambda / \sqrt{A} = 54.01 Fr^{0.397}$ $R = 0.07 Q^{0.243}$ $\lambda = 46.43 Q^{0.446}$
Edgar and Rao (1983)	$\lambda / \sqrt{A} = 53.40 Fr^{0.472}$ $R = 0.15 Q^{0.703}$ $\lambda = 37.20 Q^{0.336}$



## 2.5 Sediment Transport within a Vegetated Zone

Even though the present study does not directly address sediment transport in the vegetated zones, studies will be highlighted here because the current study has implications for sediment transport process. There is much concern about the sediment transport behavior through vegetation zones as well as suspended sediment and nutrient removal in the vegetated zone.

Barfield, Tollner and Hayes (1979) studied the filtration of sediment in steady-state flow with homogeneous sediment and unsteady flow with heterogeneous sediment. Since the early 1970's vegetation was accepted by the Environmental Protection Agency (EPA) and USDA Natural Resource Conservation Service as the best nonstructural way to trap sediment. Previously, Ohlander (1976) presented a model of sediment trapping in a filter media assuming that infiltration is described by the SCS curve number. Wilson (1967) presented the results of sand, silt and clay trapping by a grass filter on a very flat slope. Ohlander and Wilson developed models of steady-state flow with homogeneous sediment and unsteady flow with non-homogeneous sediment. The steady flow model finds the required media spacing, channel slope, and the length of the media to give a desired outflow concentration for given flow conditions. Barfield et al. (1979) concludes that the outflow concentration primarily depends on the channel slope and spacing.

To analyze sediment deposition in vegetated areas, Tollner, Barfield, Hayes (1982) studied the relationships that define the steady state sediment transport capacity of erect vegetal filters. One nonstructural method of controlling sediment production is the use of vegetative filters that decrease velocity, reduce the transport capacity of sediment-laden flow, and cause sediment deposition. Bed shear calculated by using spacing



hydraulic radius between the vegetative filters was used as a parameter in the sediment transport formulae of Einstein (1942) and Graf (1971) as well as Neill's (1967) relationship to describe the initiation of sediment motion. The results gave excellent agreement between the observed and predicted sediment transport values.

Dabney, McGregor, Meyer, Grissinger and Foster (1993) examined vegetative barriers for runoff and sediment control. Vegetative barriers are designed to divert runoff to a stable outlet, trap sediment-borne and soluble contaminants and facilitate their transformations, retard and reduce surface runoff by promoting detention and infiltration, disperse concentrated flow and prevent ephemeral gully development, and facilitate benching of sloping topography. Their study describes the aspects proposed from practice and discusses the applications and limitations of vegetative barriers as part of a conservation plan for controlling runoff and water erosion.

Shimizu and Tsujimoto (1997) examined the concentration ratio of suspended sediment near a vegetation zone. A numerical simulation is used to examine the behavior of suspended sediment concentration under unsteady flow conditions. They found that the suspended sediment concentrations are low but exhibit a kink in the profile and that concentration increased in the non-vegetated areas. The change in sediment concentration was higher for finer sediment particles.

Tsujimoto (1997) investigated sediment sorting near a vegetation zone along a stream. The deposition of sediment promotes changes in the river landscapes. During floods, the lateral mixing can affect a river's morphology and flow resistance. Tsujimoto (1997) observed a sorting process in an experimental channel and formulated a non-equilibrium bed load transport model that can explain the observations. The vegetation





zone is non-submerged and the cylinders representing the vegetation have constant diameters and equidistant spacing. The flume had a movable bed of coarse and fine sand. Tsujimoto (1997) observed organized low frequency fluctuations in the flow near the vegetation zone, which affected the bed-load motion. With the bed composed of graded materials, this process causes lateral sorting and forms a longitudinal stripe of fine sediment near the vegetation.

Okabe, Yuuki, and Kojima (1997) have studied bed-load transport rate in movable beds covered by vegetation. The vegetation causes a reduction of actual friction stress on the beds and lowers sediment transport rate. This research is important because two types of plant models (cylindrical and curved, and branched and inclined) are used. Okabe, Yuuki, and Kojima develop a two-dimensional turbulent flow model based on the spatially averaged equations but the applicability of the study has been confirmed only for the simplest vegetation models. Simulated bed-load rates and friction factor stress is compared with Ashida-Michiue's (Ashida et al., 1972) bed-load formula with good success.

Fukuoka and Watanabe (1997) examined the horizontal structure of flood flow with dense vegetation clusters along the main channel banks. Since flooding affects agriculture, the effect of vegetation on flooding is important. The authors successfully applied an analytical method to predict flood flow of an actual river in which vegetation along the bank along the main channel generates large-scale horizontal eddies. Large-scale horizontal eddies near the vegetation may cause the river to meander.

Lopez and Garcia (1998) modeled suspended sediment transport through simulated vegetation. Since suspended sediment and chemical contaminants (pesticides,



heavy metals, etc.) are being deposited and retained within natural and artificial waterways by wetlands, there is a need to understand retention processes in wetlands and streams. A two-equation turbulence model was used to determine the mean flow and turbulence structure of open channels within vegetation in order to estimate suspended sediment transport processes. Numerical experiments attempted to find the effect of different flow properties, sediment characteristics, and vegetation parameters on the turbulent flow field. Lopez and Garcia (1998) observed lower suspended sediment transport in the vegetated areas compared to the nonvegetated zones under similar flow conditions because of the reduction of the averaged streamwise momentum transfer toward the bed induced by vegetation. The reason for the reduced momentum transfer in vegetation is the absorption of the momentum by plants via drag forces.

In conclusion, previous work on vegetation examined many of the effects that vegetation can have on flow and sediment transport. Yet little information exists on the interaction of vegetation density on flow within straight channels in order to cause stream meandering. These previous studies concentrated on vegetation resistance, effects of vegetation on turbulence characteristics, and the removal of contaminants in vegetated wetlands.



### **3 EXPERIMENTAL EQUIPMENT, SETUP AND PROCEDURE**

#### **3.1 General**

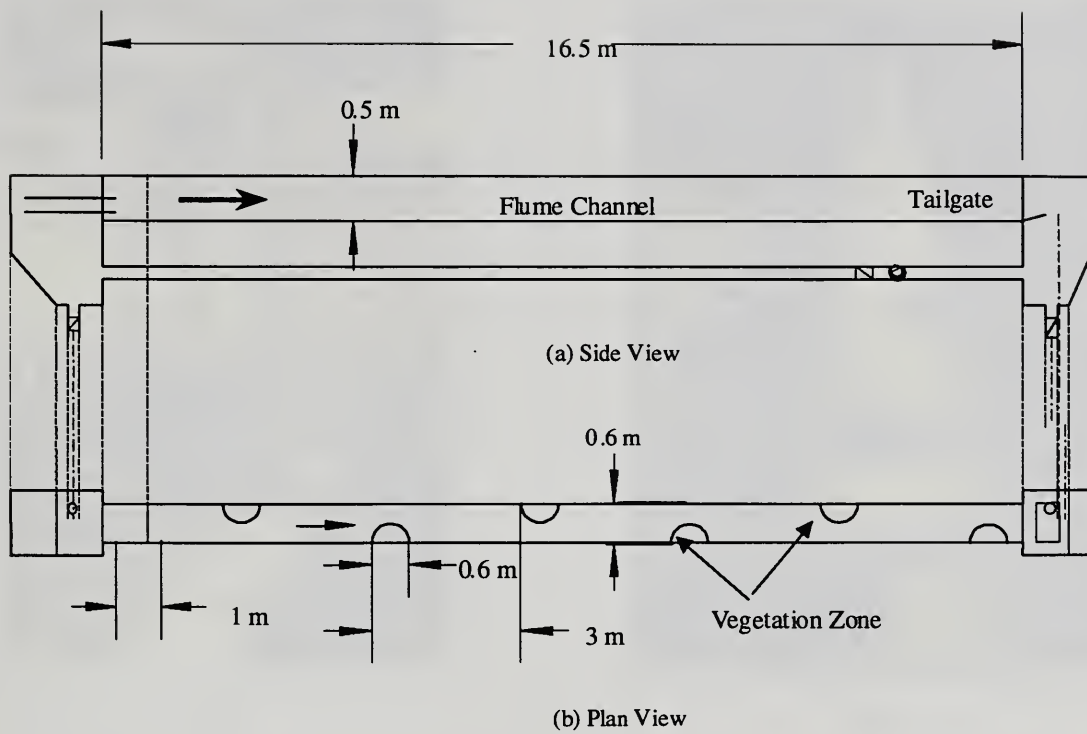
Experiments were performed to examine the effect of vegetation density on flow within a straight, degraded stream corridor in order to facilitate restoration of habitat, habitat resources and sinuosity. This chapter describes the experimental equipment, how it was set up, and the procedure followed.

#### **3.2 Experimental Equipment**

Laboratory experiments were performed at the USDA-ARS National Sedimentation Laboratory using a tilting recirculating flume 16.5 m long and 0.6 m wide (Fig 3-1). The flume has a stabilizer at the entrance to damp pump-induced turbulence and at the exit to achieve uniform flow. Flow in the flume is driven by a 7.5 HP centrifugal pump, and discharge was measured by manometers connected to a calibrated Venturi meter. A video camera for taking Particle Image Velocimetry (PIV) was mounted on a rail system on top of the flume. The dynamic and static water depth was measured by a point gage mounted to a carriage on the flume's rail (Figures 3-2).





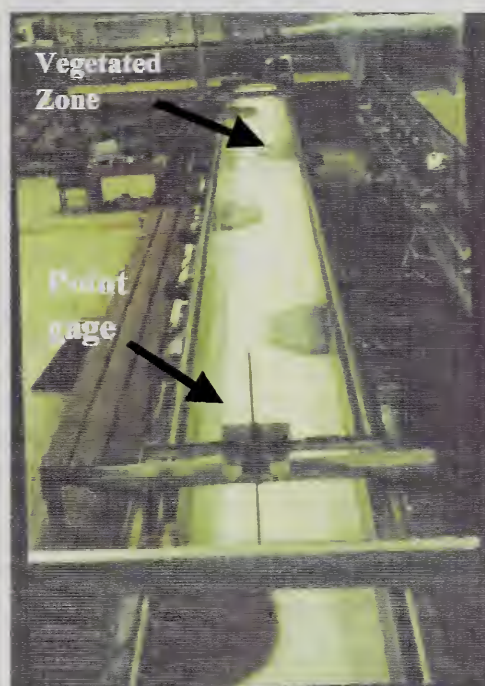


**Figure 3-1. (a) Side and (b) Plan, view of the recirculating flume with the simulated vegetation zones.**





(a)



(b)

**Figure 3-2. (a) Camera rail setup on the flume; (b) The point gage system on the flume.**

### 3.3 Experimental Design

Since the effect of vegetation density on flow alteration is to be examined, all other flow conditions remained constant throughout the experiments. Values for all other flow parameters were chosen to simulate conditions found in typical incised streams.

The most challenging aspect of the experimental design was to choose appropriate values for flow velocity, the vegetation wavelength and density, the size and geometric pattern of the vegetal elements, the flow depth, and Froude number.

Based on previous laboratory studies of meandering channels and the constraints of the pump, a discharge of  $0.0042 \text{ m}^3/\text{sec}$  was chosen. Using this discharge, the slope of the flume was adjusted for attaining flow uniformity, to 0.0004. The pre-vegetation flow





depth was 27 mm. This corresponds to a Froude number of approximately 0.5 and a width-to-depth ratio of about 25 that corresponds to many natural channels (Northwest Hydraulic Consultants Inc., 1987, 1988, 1989). Table 3-1 summarizes the flow characteristics of the experiment.

**Table 3-1. The Flow Characteristics of the Experiment.**

Name	Unit	Value
Discharge (Q)	m <sup>3</sup> /sec	0.0042
Depth (d)	mm	27
Width (w)	m	0.6
Wetted-Area (A)	m <sup>2</sup>	0.016
Froude Number (Fr)	—	0.47

There are many formulae proposed to calculate the equilibrium meander wavelength for laboratory (Table 2-1) and field experiments. Table 3-2 summarizes the equations derived from laboratory studies. A meander wavelength of 4.8 meters obtained by Ackers and Charlton (1970) was chosen for this study because of the following criteria;

- The discharge rate used in this study is within the range of values regressed by Ackers and Charlton for similar laboratory conditions.



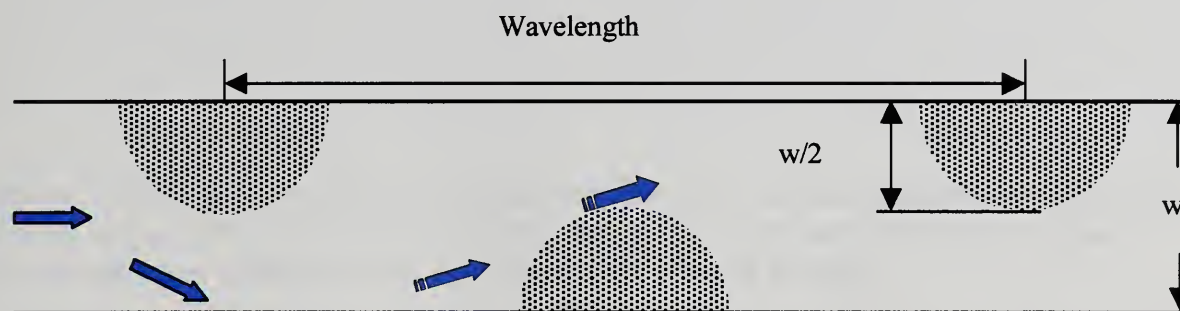
- The correlation coefficient for the Froude number—wetted-area equation is the highest.
- The experiment condition was for a sand-bedded channel.
- Since these equations are based on experimental data, some discrepancy occurred between equations depending solely on discharge and those depending solely on the Froude number and wetted-area parameters. Ackers and Charlton's study has the smallest discrepancy using these different approaches. Hence, a wavelength of 4.8 meters was chosen resulting in 6 vegetation zones in the 16.5-m flume.

**Table 3-2. Predicted meander wavelength calculated using different empirical relationships and the chosen flow parameters discussed in the text.**

Data Source	Wavelength based on	Wavelength based on
	discharge (m)	discharge and cross-sectional area (m)
Ackers and Charlton (1970)	4.7	4.8
Khan (1971)	6.1	4.9
Edgar (1973)	6.1	5.3
Edgar and Rao (1983)	6.0	4.9



A semi-circular shape was chosen for each vegetation zone to simulate the shape of meanders. The radius of the semi-circle was chosen to be half of the flume width ( $w$ ) in order to ensure significant velocity diversion (Figure 3-3).




**Figure 3-3. A plan view section of the flume with vegetation areas.**

Vegetation density was systematically varied in this study. Six different vegetation densities were used including the unvegetated situation (Figure 3-4). The vegetation pattern in each vegetation zone was staggered in order to maximize flow resistance. A staggered configuration was designed with a spacing of 3 times the diameter of the vegetation-element diameter for transverse and downstream directions. This spacing was shown to be consistent with values used by Ming Li and Shen (1972). Instead of real vegetation, 3-mm diameter dowels were used. These dowels were placed in holes drilled in the prescribed pattern in the plywood flume bed that was painted white. In order to alter the vegetation zone density, alternate dowels were removed in the following way (Figure 3-5): alternate rows of dowels were completely removed while alternate dowels in the remaining rows were removed.

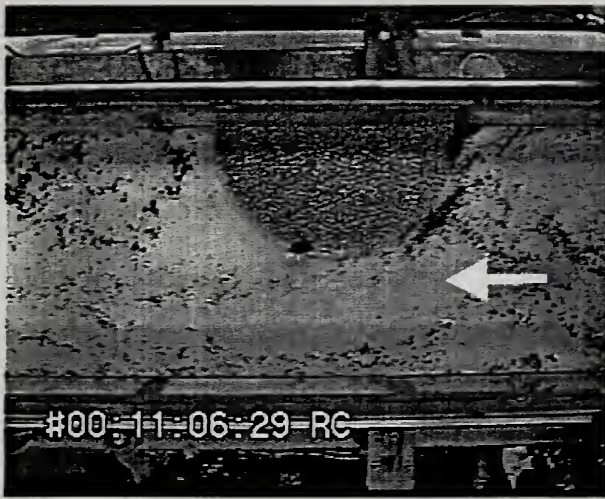




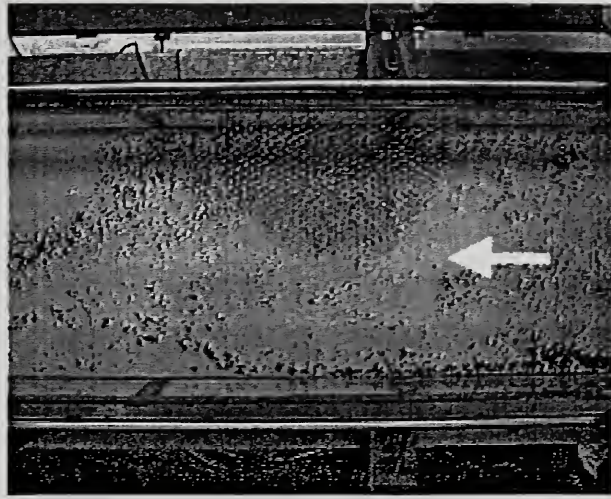


**Figure 3-4. Plan view of the instantaneous flow view of the vegetated sections with density of (a) 10%; (b) 2.5%; (c) 0.6%; (d) 0.2%; (e) 0.04%; (f) 0.0%. These percentages are defined in the text. Flow is from left to right.**

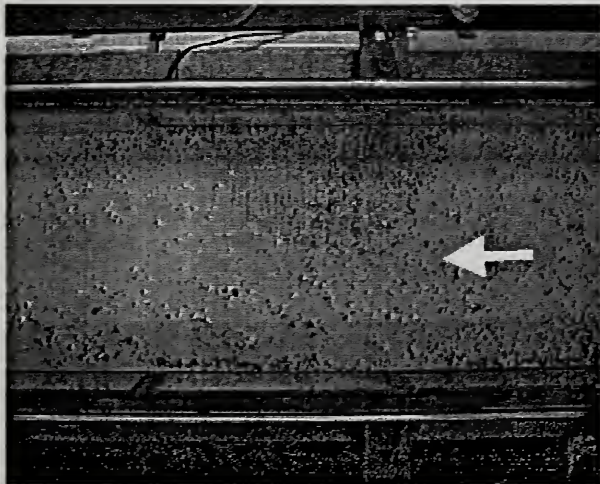




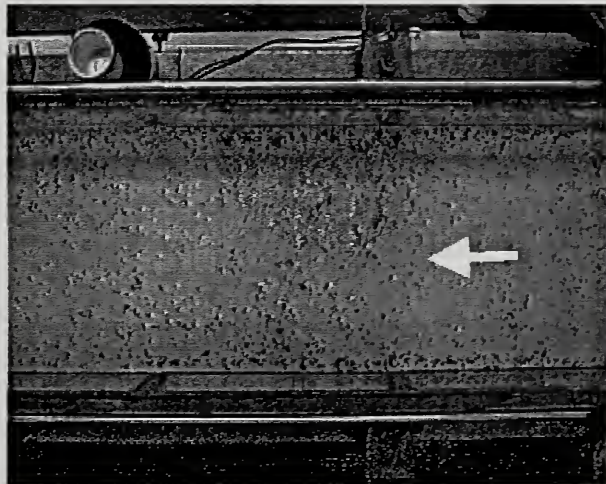
(a)



(b)



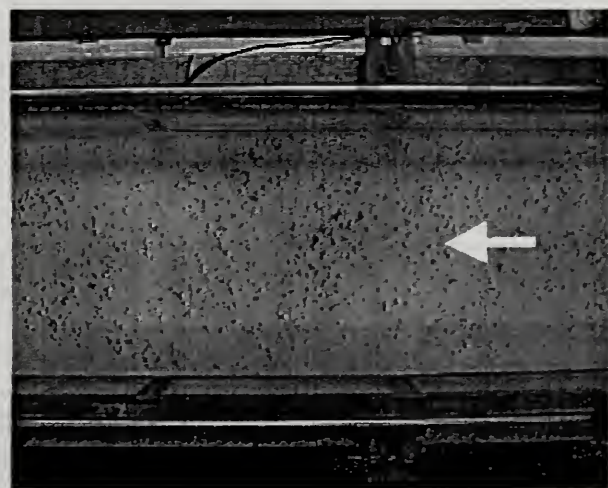
(c)



(d)



(e)

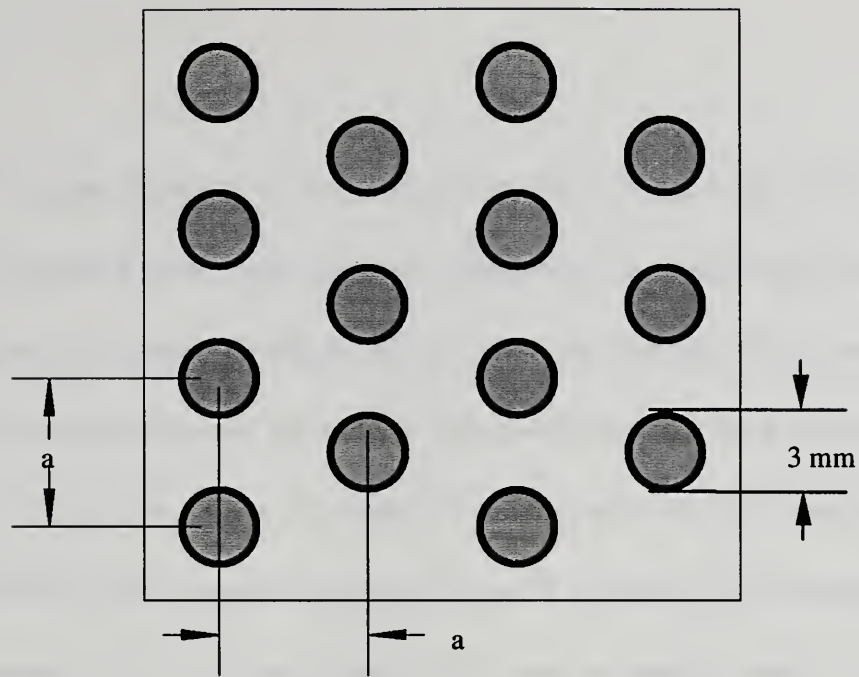


(f)

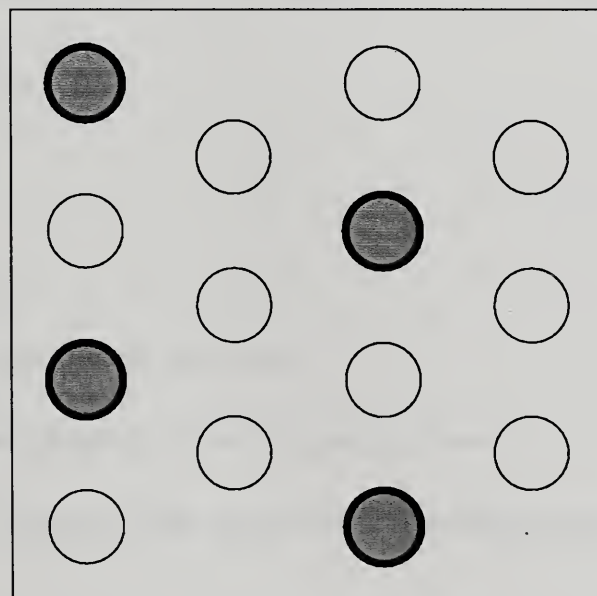








(a)



(b)

**Figure 3-5. Close-up schematic of dowel configuration for vegetation densities (a) 10%; (b) 2.5%. Percentages are defined in the text.**



In Figure 3-5(a), the distance 'a' between the dowels is 9 mm both vertically and horizontally, which is three times the dowel diameter. To change vegetation density, the gray-filled dowels remained while the clear ones were removed. This removal system results in the distance between the dowels being kept constant both vertically and horizontally. The distance from the center of one dowel to the next was doubled while the density of dowels in the vegetated zone decreases 7.5 percent. This procedure of systematic removal of dowels was repeated for every vegetation density configuration until no dowel was left. The density was calculated by dividing the total plan view area of the dowels by the plan view area of the vegetation zone as in Equation 3-1.

$$D = \frac{A_d \times n}{A_s} \times 100 \quad (\text{Equation 3-1})$$

where,

$D$  = Density

$A_d$  = Plan view area of one dowel

$n$  = Number of dowels in one vegetation zone

$A_s$  = Plan view area of the semicircular vegetation zone

After design and setup of the experiment, the flume was run for each vegetation density from the highest vegetation density to lowest. The dowels and plywood in the test section were painted white in order to enhance the contrast between black PIV seed particles (see explanation of PIV in Section 3.4.1).



### 3.4 Experimental Procedure

To characterize the surface flow field for each vegetation density, Particle Image Velocimetry (PIV) was employed. This technique uses digitally recorded images and image analysis software to quantitatively determine the displacement of seed particles in the flow. Once processed, an instantaneous vector plot is produced for the entire flow field.

#### 3.4.1 PIV Technique

Black floating particles approximately 2 mm in diameter were added to the flow surface and photographed from the top of the flume by a video camera that mounted orthogonal to the flow. The beads were distributed into the running flume upstream of the region being recorded for the entire video recording time. The camera only recorded one wavelength section of the flume, which contained three vegetation zones. Since the camera was not able to view the total vegetated area of the flume, it was divided into five sections and every section was recorded consecutively one by one for each vegetation density. This procedure of recording was repeated for each section of every vegetation density. During this time flow depth was measured in an area comprising one-half a meander wavelength using a manual point gage.

#### 3.4.2 Processing

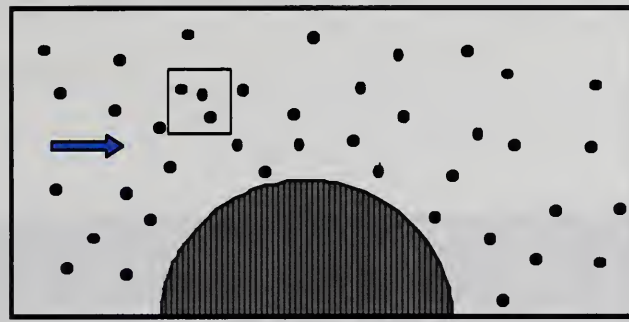
Each flume section was recorded for 2 to 3 minutes. Two successive images, separated in time by 0.0167 s, were obtained using a Matrox Meteor frame grabber every



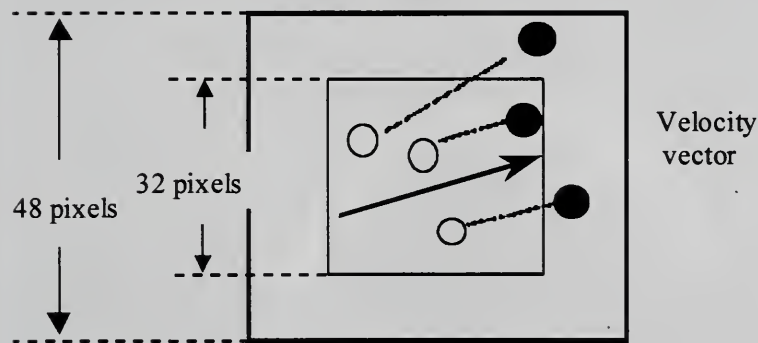


second for up to one minute. All frames were saved as black and white bitmap files. A commercially available image analysis software package, VidPIV 2.41 (VidPIV, 1995), was used to quantify the flow field. VidPIV is a windows-based package that can interrogate stroboscopic images or pairs of successive images provided at precise times and are time-stamp. These double images provide a displacement record of the particles within the measurement plane, which is then analyzed and scaled to velocity. Typically, PIV images are analyzed over a pointwise grid of local interrogation spots. The size of the interrogation region is selected such that it is large enough to include a sufficient number of particle image pairs for an accurate measure of local displacement, but small enough that there is little variation in velocity across the interrogation spot( $<5\%$ ). The correlation processing is the first step in PIV analysis. Correlation processing interrogates a local area of the flow map and produces a measure of the average local displacement of particles within this region. Since two pairs of images were grabbed to analyze , cross correlation for separate images was used. This approach is the most effective for PIV because the order in the which particles are recorded is known and so the direction of the flow is unambiguous. The cross-correlation function results from correlation of a displaced particle distribution between two separately recorded images. Interrogation size divides the flow area into squares with the length chosen in pixels and to locate particle displacement the program expands this area by entering grid spacing values in pixels which defines the side length of expansion in both directions (Figure 3-6).





(a)



(b)

**Figure 3-6. Schematic figure of (a) vegetation zone with seed particles at time 1 and (b) the interrogation area showing particles at time 1 (open circles) particles at time 2 (solid circles), and the resultant velocity vector.**

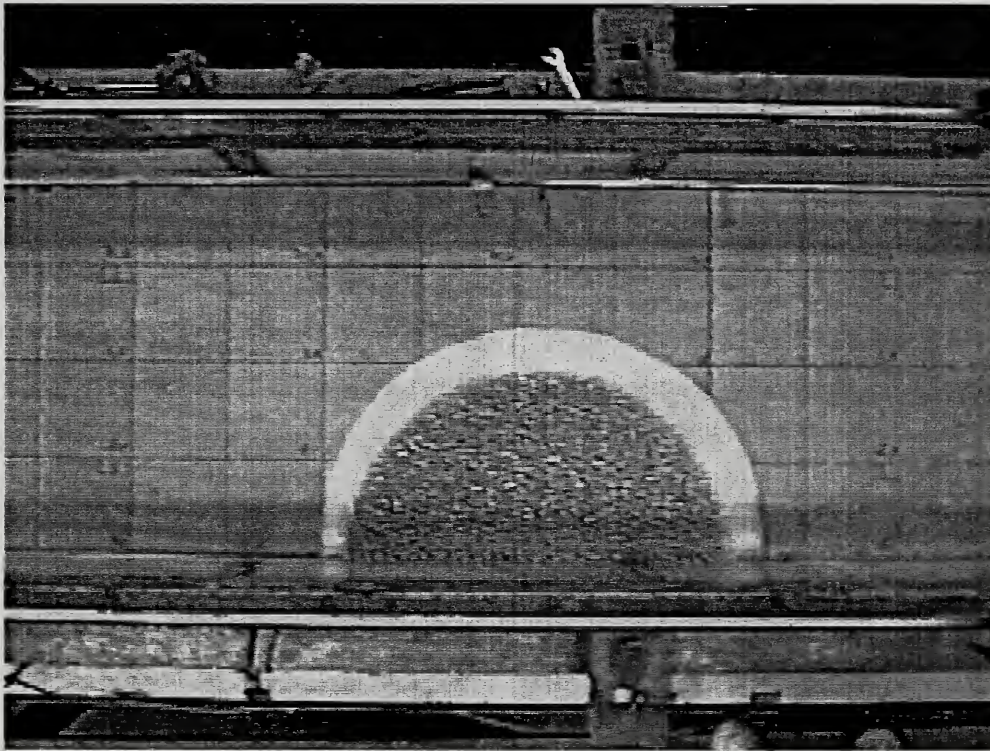
The interrogation area is a square 32 pixels on each side, and to locate particle displacement the program expands this area 50% by defining the grid spacing to have 16 pixels as shown in Figure 3-6 above.

Since PIV analysis uses measurements of pixels, the vector plot has to be scaled to actual measurement units. To facilitate this, a grid was placed inside the channel and recorded for each section. Then for each section, the grabbed grid images' pixel values were scaled to actual measurement values. This was accomplished by choosing six points





from the grid with known actual measurement values, where the grid is in the same plane as the particles (Figure 3-7).



**Figure 3-7. The grid scale image of the vegetated zone section.**

There are at least two sources of spatial error that could compromise the integrity of the derived vectors. First, lens curvature causes the edges of the frame to be distorted. This error was minimized by not using these areas in the PIV analysis. Second, variations in the gridlines can also cause small spatial errors. By measuring the lengths in pixel space of successive squares in the grid, a standard deviation of 1.62% was determined.

An example is presented next that illustrates the use of PIV. The first image is opened in the software, then the next image is opened and overlaid on the first one. The correlation method chosen is cross-correlation separate images. After the correlation



process, the interrogation size and grid spacing are chosen to be 32 and 16 pixels, respectively. The interrogation type is chosen to be “area interrogation” from the interrogation methods menu. Then the flow area to be interrogated is chosen on the image. VidPIV draws vector maps automatically. Finally, the plotted velocity vectors are scaled by a grid system to change the units from pixels to the physical measurement units (Figure 3-8).





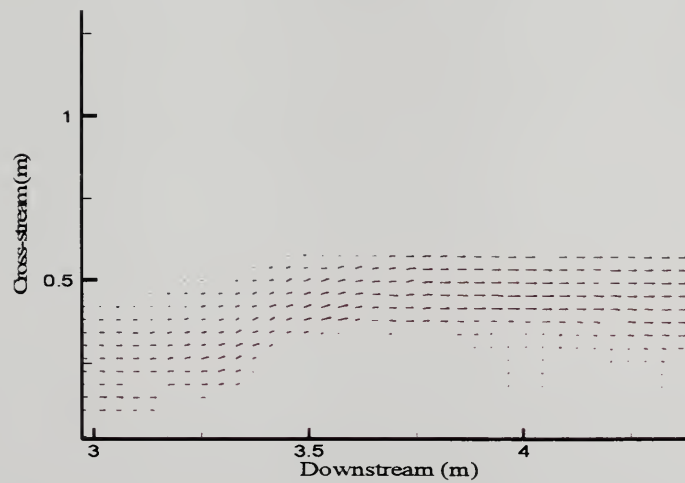
(a)



(b)



(c)



**Figure 3-8. An example of velocity vectors obtained by PIV (a) The first image of the pair with frame number #12:18:17; (b) The second image of the pair with frame number #12:18:18; (c) The velocity vector plot of the cross-correlated images of frame #12:18:17 and #12:18:18.**





Plots were exported to text files in columns of X and Y coordinates and velocities in the X and Y direction. For each vector plot an average of 60 vector fields were used in each flume section. The text files for each section were averaged by running a FORTRAN 90 program (see Appendix A) and the averaged data stored in a text file (see Appendix C). Then the averaged files for each section were combined and overlapped. Portion of images that overlapped were made consistent. Finally the averaged files were combined from each recorded section under one averaged file for the whole flume. Vector plots were plotted using the Tecplot software program.



## 4 ANALYSIS AND RESULTS

### 4.1 General

Analyses were made on the time averaged velocity data obtained by using the PIV and flow depth data collected point gage for each vegetation density. The time averaged velocity data exported as text files were plotted in the graphics software Tecplot to examine the flow velocity vectors for one whole wavelength region recorded during the experiment. The averaged velocity vectors were used to obtain streamtraces for each vegetation density. The averaged velocity vector plots within the vegetation zone and instantaneous vector plots of the non-vegetated section were also analyzed. In addition, the plots were analyzed to determine flow reattachment lengths downstream of the vegetated zone, the sinuosity of the flow, and the average velocities within the vegetation zone for each density. The depth measurements were used to determine the spatially averaged flow depth, water surface slope, bed shear stress, average flow velocity, and the drag coefficient for all vegetation densities.

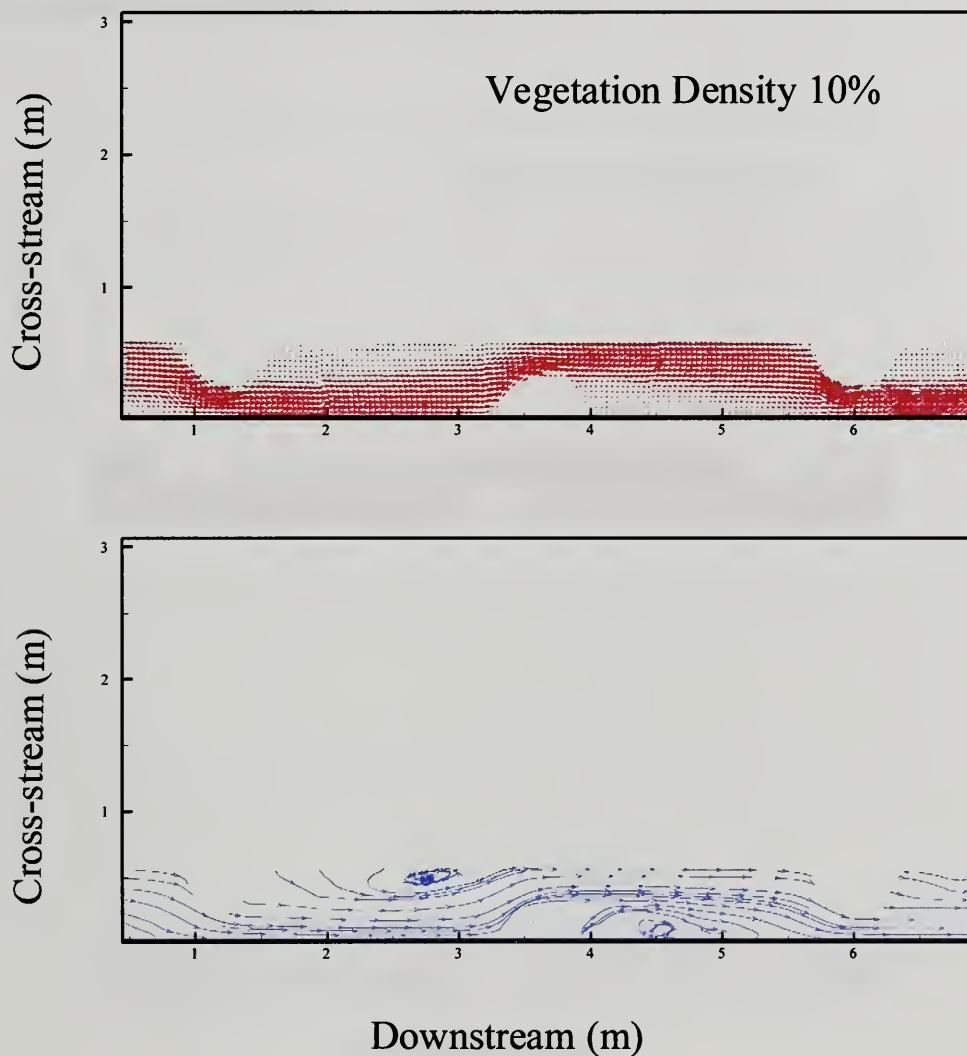
### 4.2 Time Averaged Flow Vectors

The time averaged flow data plotted for each vegetation density and the streamtraces are shown in Figures 4-1 through 4-6. For the highest vegetation density of 10%, the flow vectors show strong spatial variation. Flow velocity is greatly reduced on the near downstream sides of the vegetation, whereas flow velocity is greatly accelerated around the vegetation and on the far side of the channel. Consequently, the flow follows a





nice sinuous path around the vegetated zones. Downstream of the vegetation zone, flow separates and a large recirculation eddy is present. Very small flow velocity vectors occur within the separation downstream of every vegetated zone. The streamlines also show accelerated and decelerated flow zones, and the sinuous pattern (Figure 4-1).



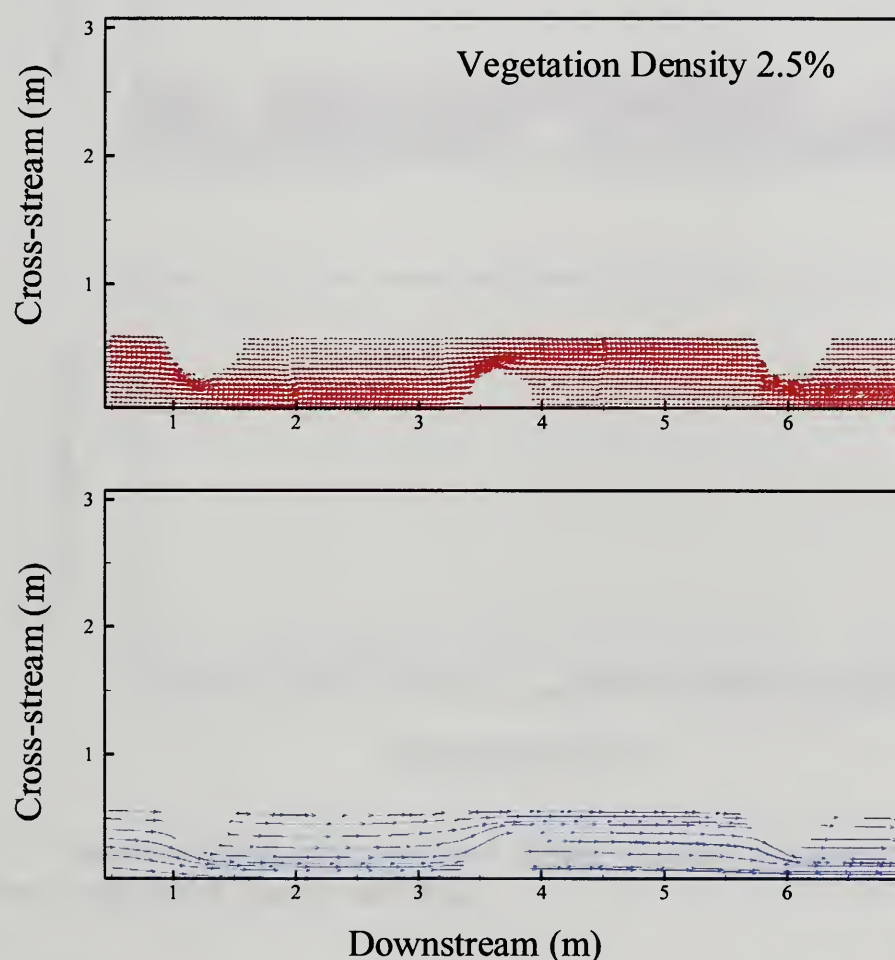
**Figure 4-1. Plan view of (a) time averaged velocity vectors (b) streamlines of the flow vectors for a vegetation density of 10%.**

The time averaged flow vectors for a vegetation density of 2.5% are shown in Figure 4-2.

Flow is markedly decelerated on the near downstream sides of the vegetation, and flow is accelerated around the vegetation and on the opposite side of the channel. A sinuous



pattern of surface flow vectors is observed. Both the magnitude of flow acceleration and deceleration and the sinuosity of this pattern are smaller compared to a vegetation density of 10%. The streamlines do not show any separation zone (Figure 4-2b), however separation is observed in the video recordings. The reason for this is due to the small recirculation velocity (Figure 4-2).

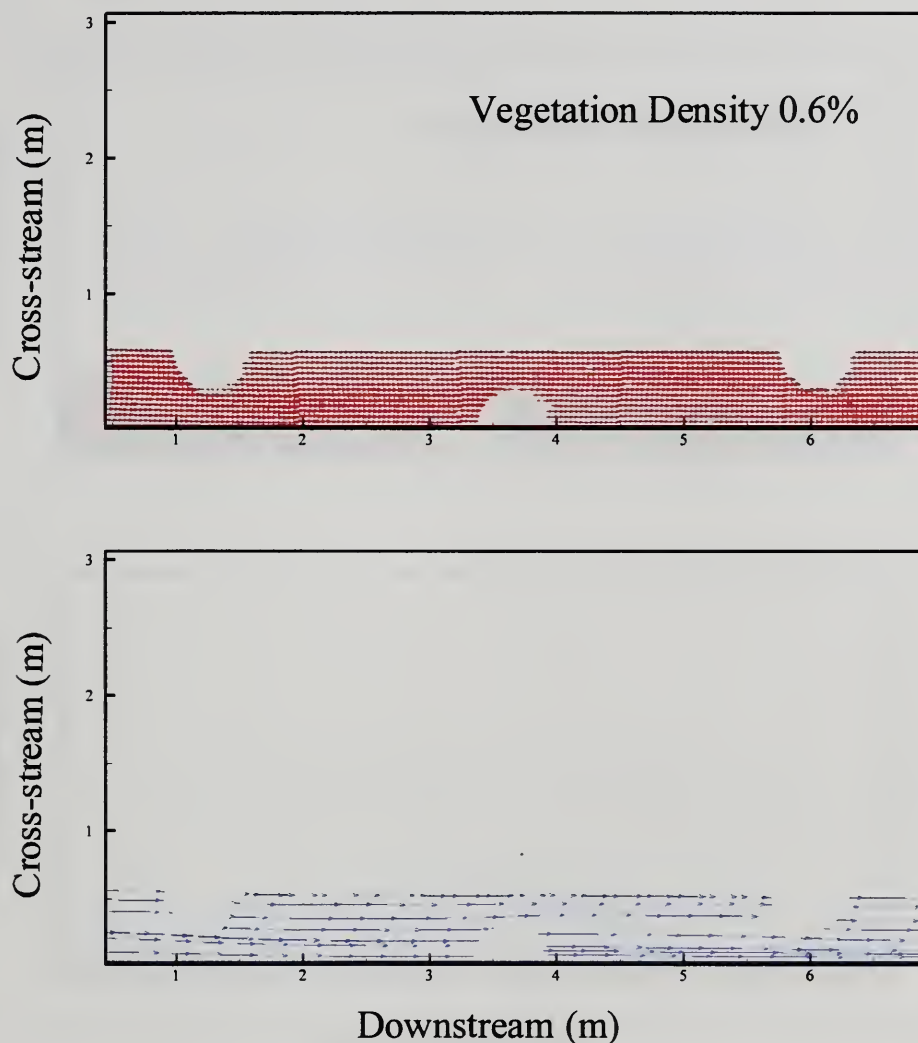


**Figure 4-2. Plan view of (a) time averaged velocity vectors (b) streamlines of the flow vectors for a vegetation density of 2.5%.**

The time averaged vector flow vectors for a vegetation density of 0.6% are shown in Figure 4-3. The spatially averaged velocity vectors are still non-uniform. The high magnitude velocities form slight sinuous patterns, but are greatly reduced in comparison



to densities of 2.5% and 10%. No point of reattachment can be observed from the video. The streamlines show almost a totally straight pattern (Figure 4-3).



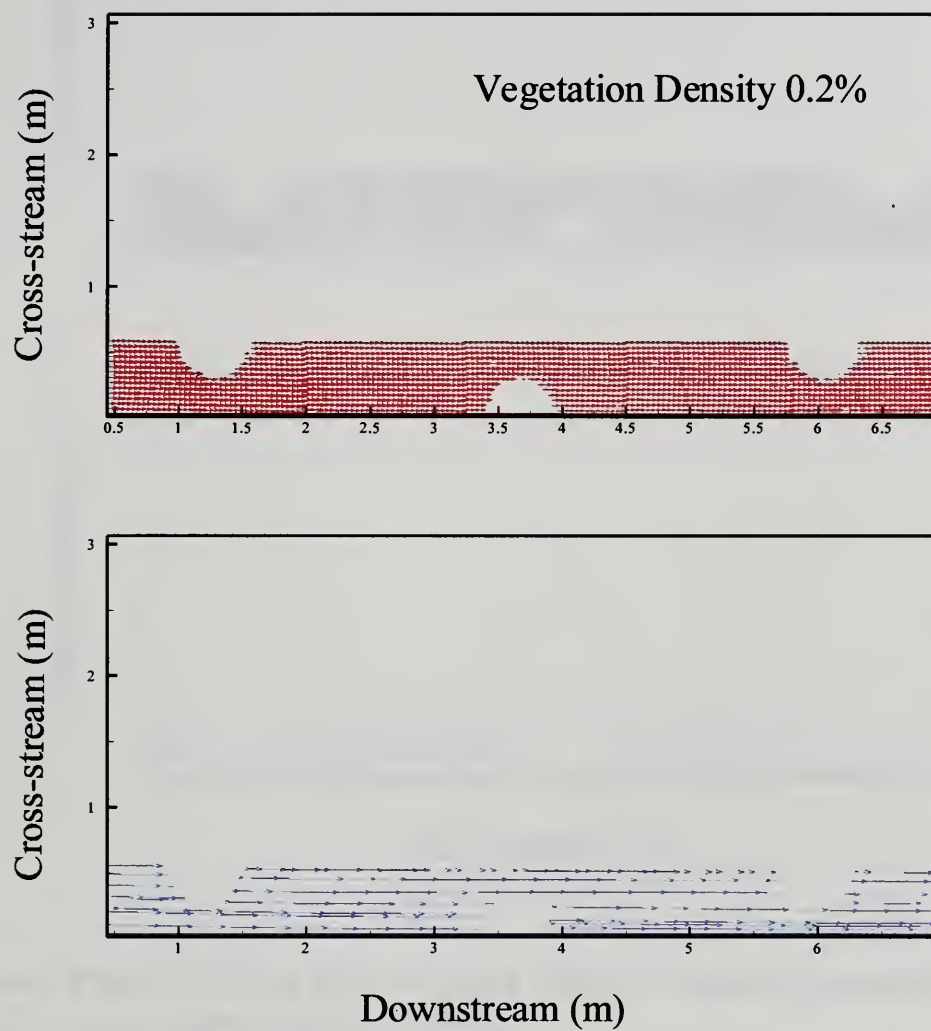
**Figure 4-3. Plan view of (a) time averaged velocity vectors (b) streamlines of the flow vectors for a vegetation density of 0.6%.**

The time averaged flow vectors for vegetation density are 0.2%, 0.04%, and 0.0% (nonvegetated case) are shown in Figures 4-4 to 4-6. In each case, spatially averaged velocity vectors are almost identical, and it is impossible to observe any sinuous flow pattern by looking at the vector plots. In each case, the streamlines are parallel to the wall of the flume. It can still be seen, however, that the velocity vectors in the 0.6% and 0.04%



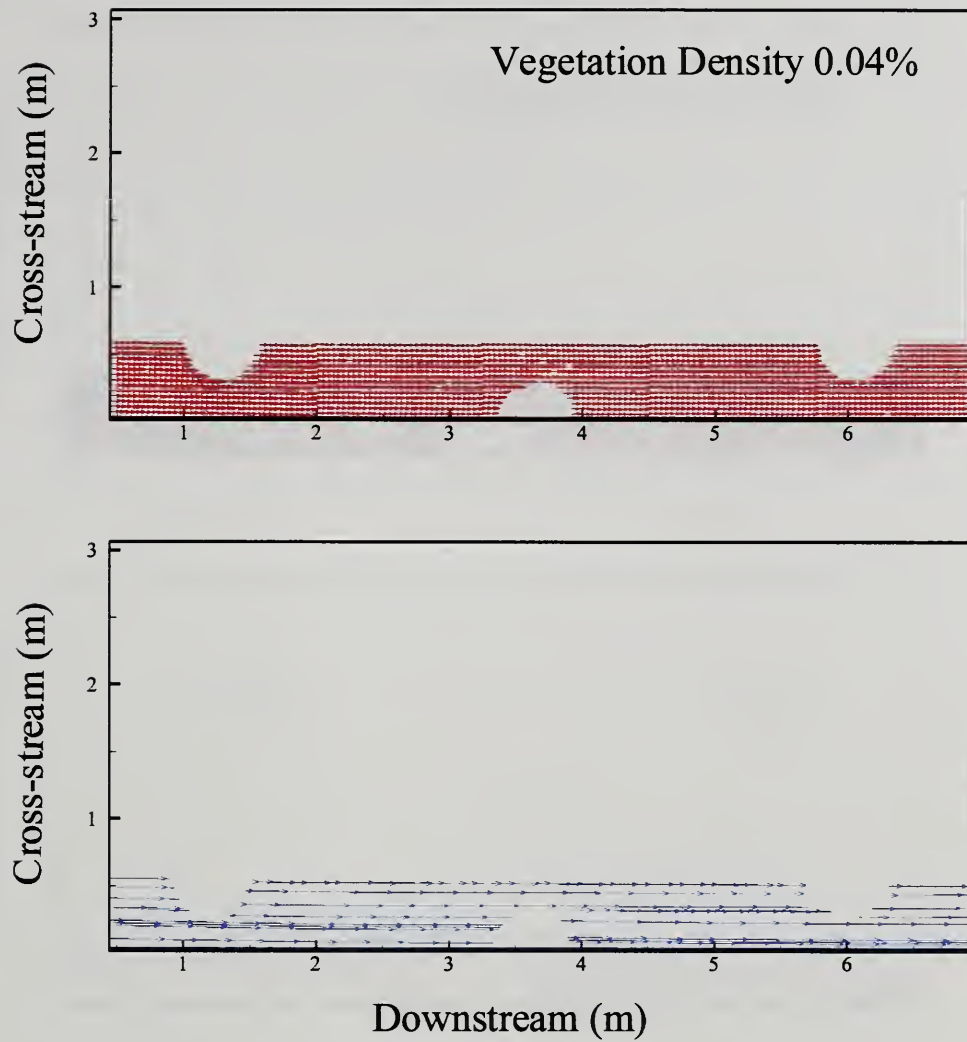


are not uniform like the non-vegetated case, but vectors for 0.04% are more uniform than 0.6%.



**Figure 4-4. Plan view of (a) time averaged velocity vectors (b) streamlines of the flow vectors for a vegetation density of 0.2%.**

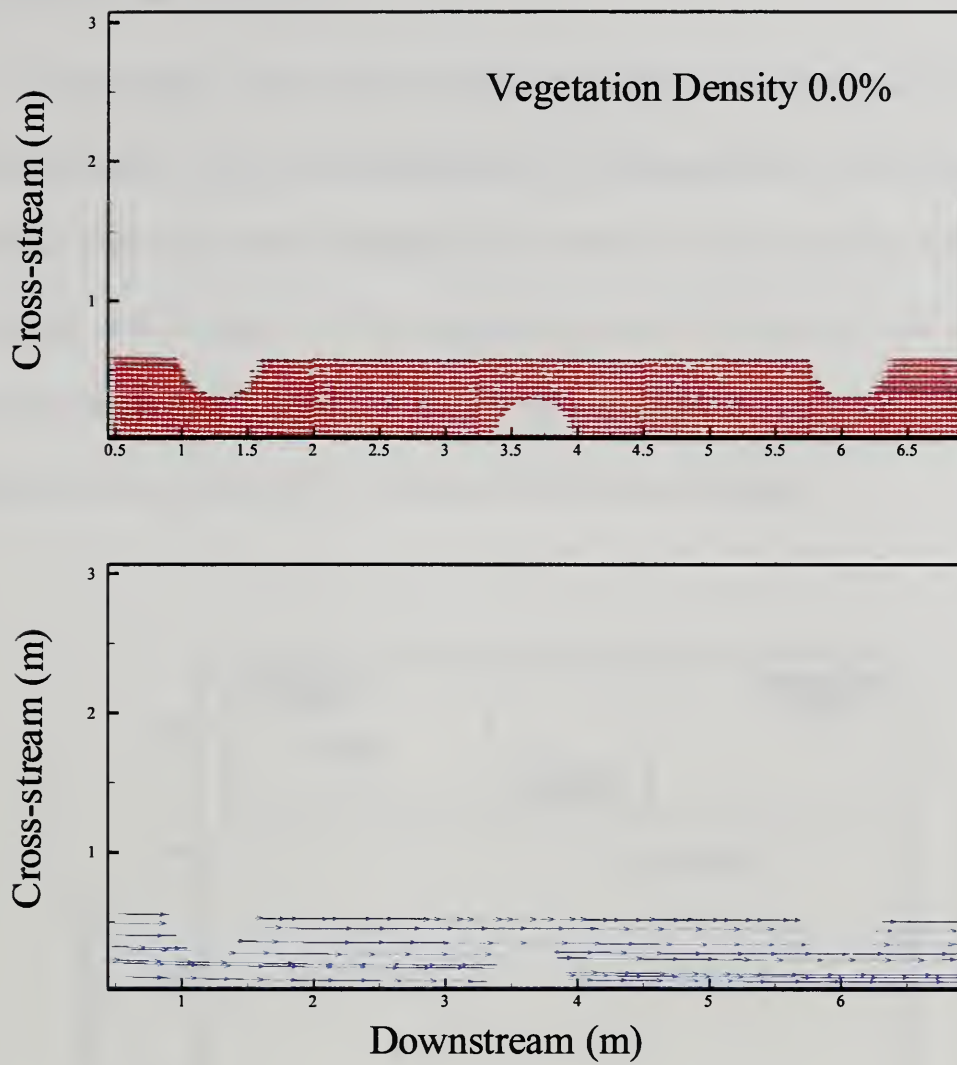




**Figure 4-5. Plan view of (a) time averaged velocity vectors (b) streamlines of the flow vectors for a vegetation density of 0.04%.**





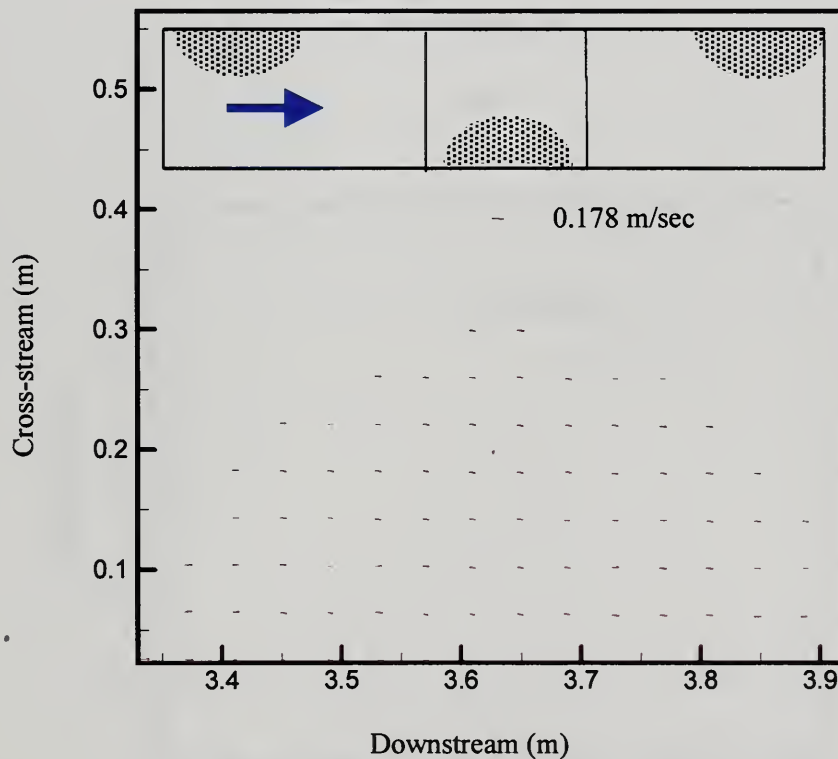


**Figure 4-6. Plan view of (a) time averaged velocity vectors (b) streamlines of the flow vectors for a vegetation density of 0.0%.**



### 4.3 Vegetated Zone Analyses

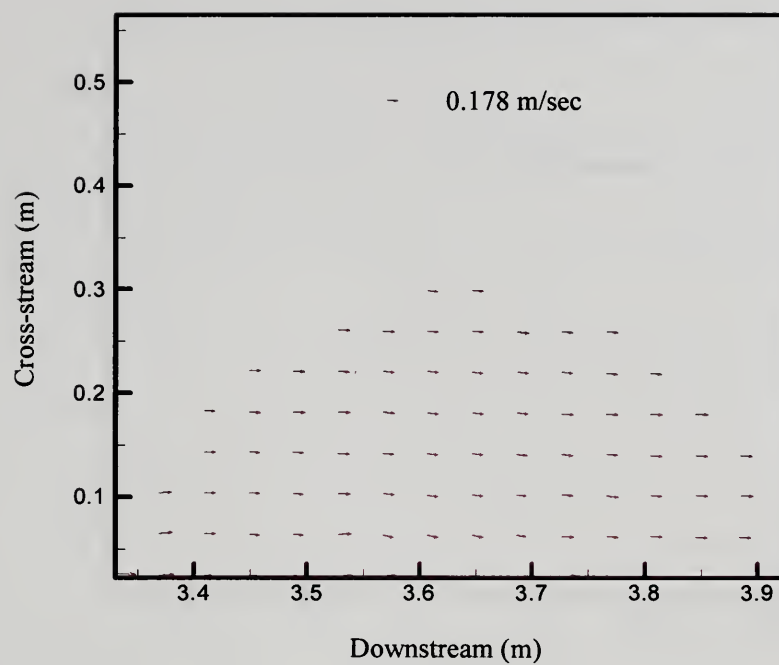
Average flow vectors were determined within one vegetation zone for each vegetation density. This was accomplished by averaging plots of ten instantaneous flow vectors and plotting the time averaged flow vectors for each vegetation density except the 10% density case (Figure 4-7). The vegetated zone of 10% density could not be analyzed because the dense configuration of dowels did not permit the seed particles to pass through the zone, hence the PIV technique could not be applied.



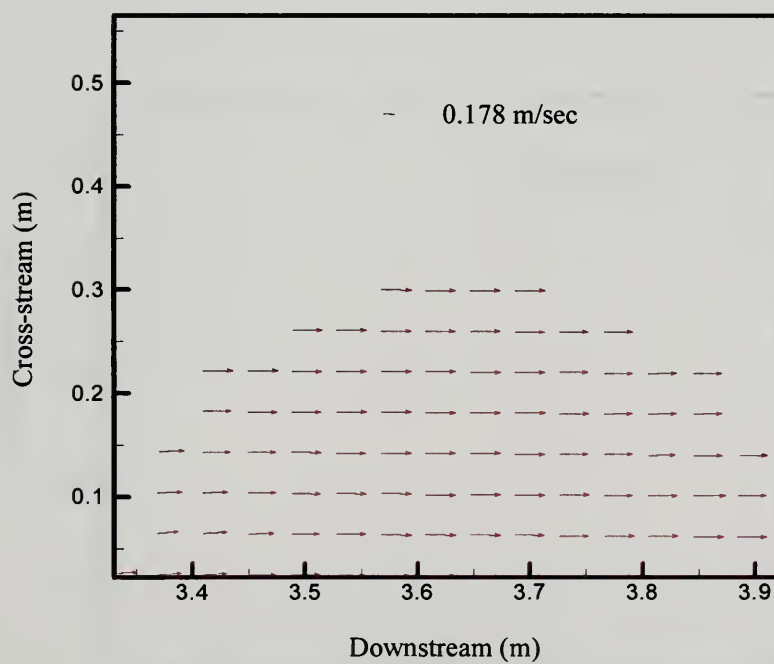
(a)

**Figure 4-7. Time averaged vector flows for the vegetation densities of (a) 2.5%; (b) 0.6%; (c) 0.2%; (d) 0.04%; (e) 0.0%.**





(b)

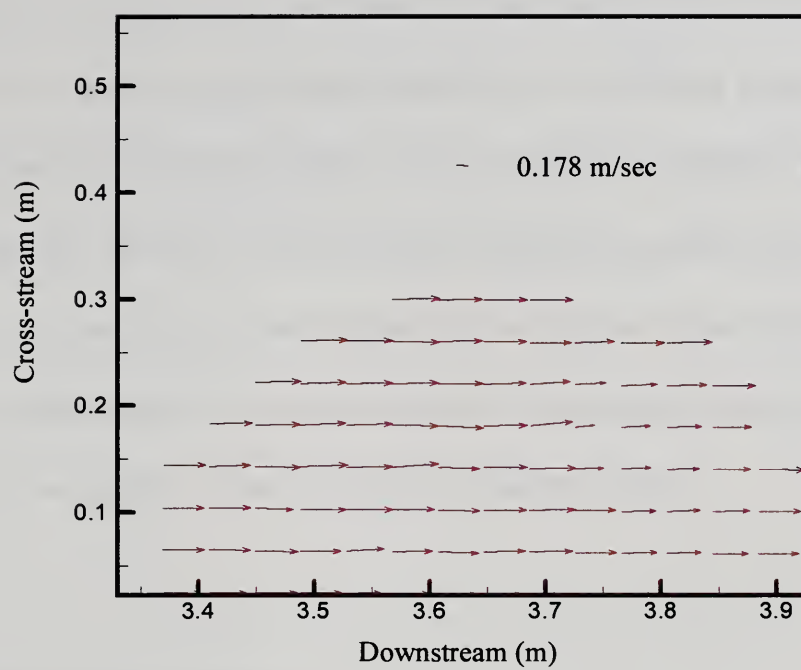


(c)

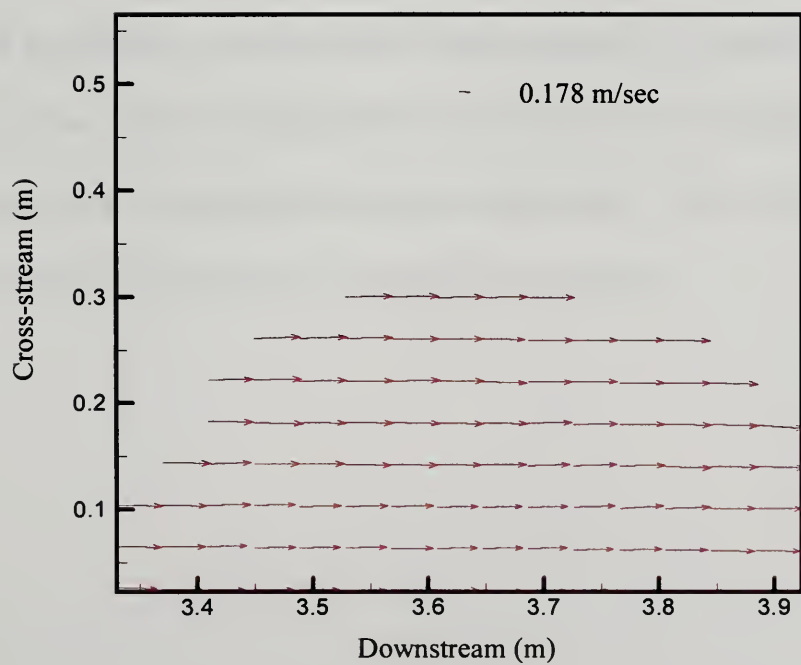
Figure 4-7. (continued)







(d)



(e)

Figure 4-7. (continued)

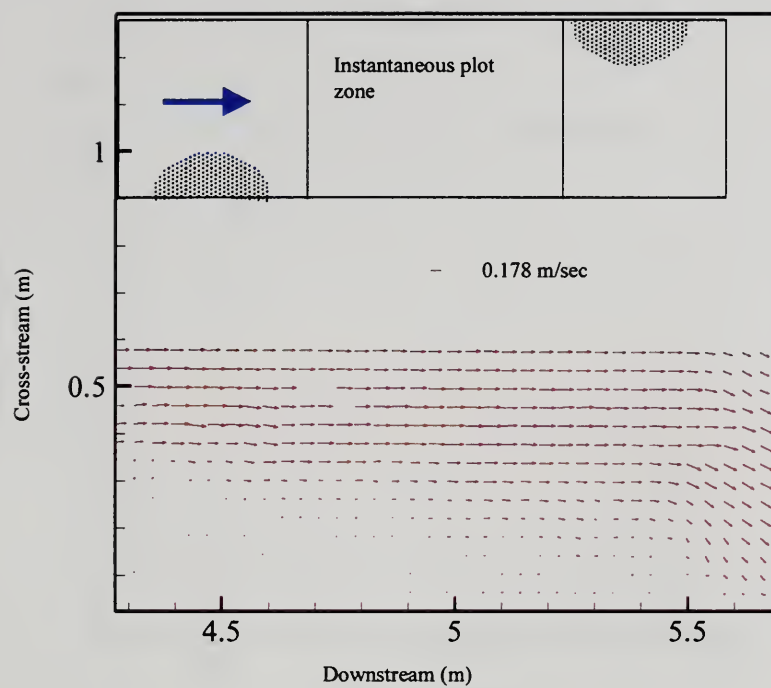


The flow velocity in the vegetated zone increases as the vegetation density decreases. The velocities near the bank appear to be the greatest in each density. For vegetation density of 2.5% and 0.6%, the flow vectors show greater angular deviation from the main flow direction. This is because of the flow pattern around the cylindrical dowels and the constriction of water between the vegetation zone and the far bank. This constriction pushes the flow toward the inside of the vegetation zone, which causes the flow inside of vegetation to have a negative transverse flow.

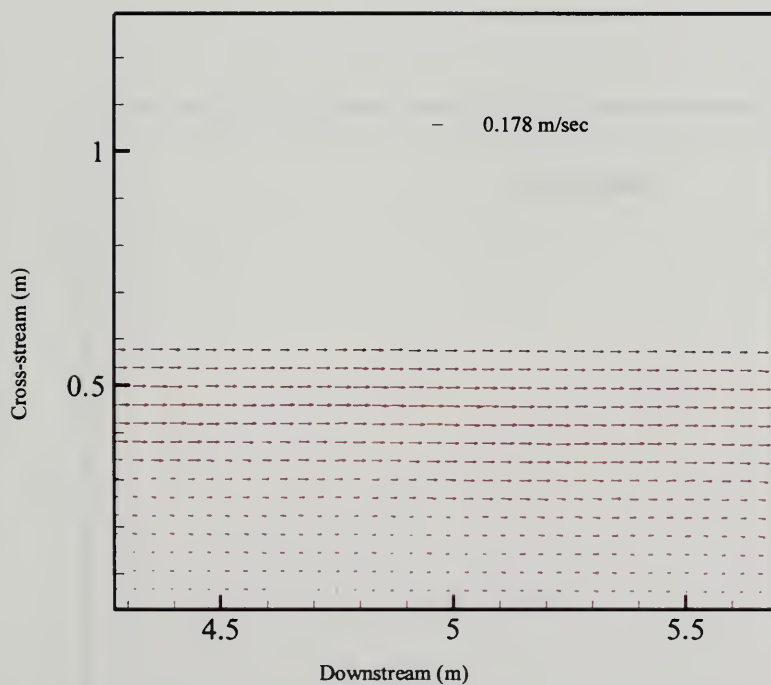
#### 4.4 Instantaneous Flow Vectors

The instantaneous flow vectors for the section downstream of the vegetation were plotted to examine the velocity characteristics for each vegetation density (Figure 4-8). The effect of vegetation on the flow field is most severe for a density of 10% (Figure 4-8a and 4-9a). Here, large vortical motions can be observed. As vegetation density decreases, the effect of vegetation decreases dramatically. Flow still shows areas of acceleration and deceleration but no vortical flow structure.





(a)

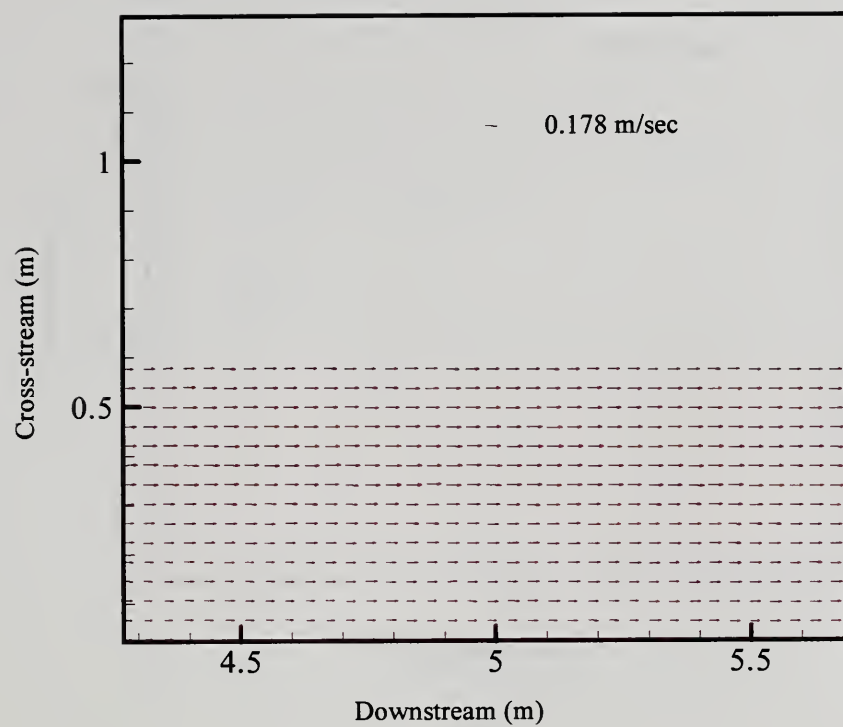


(b)

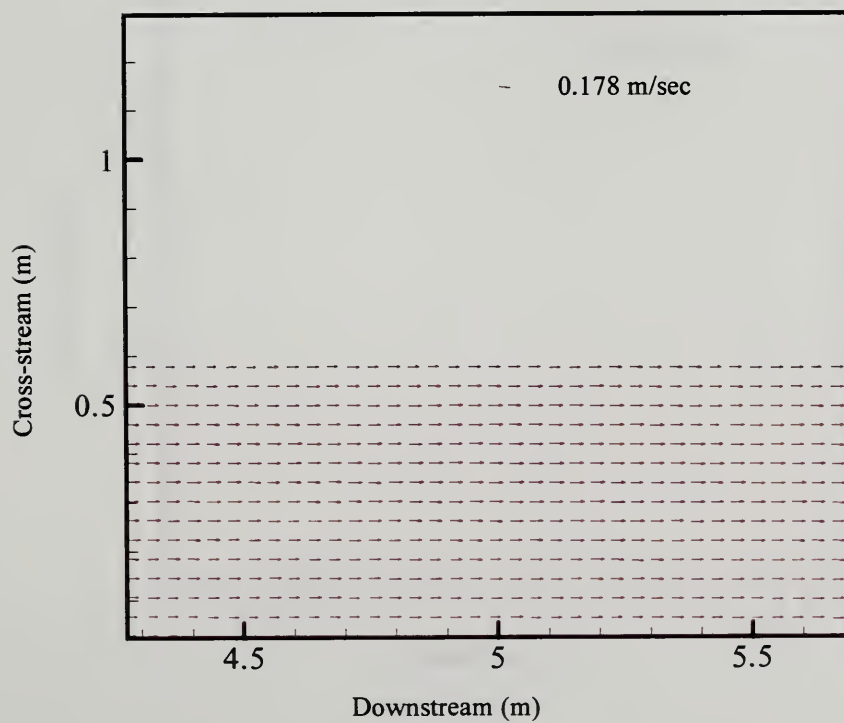
**Figure 4-8. Instantaneous flow vectors for vegetation densities of (a) 10%; (b) 2.5%; (c) 0.6%; (d) 0.2%; (e) 0.04%; (f) 0.0%.**





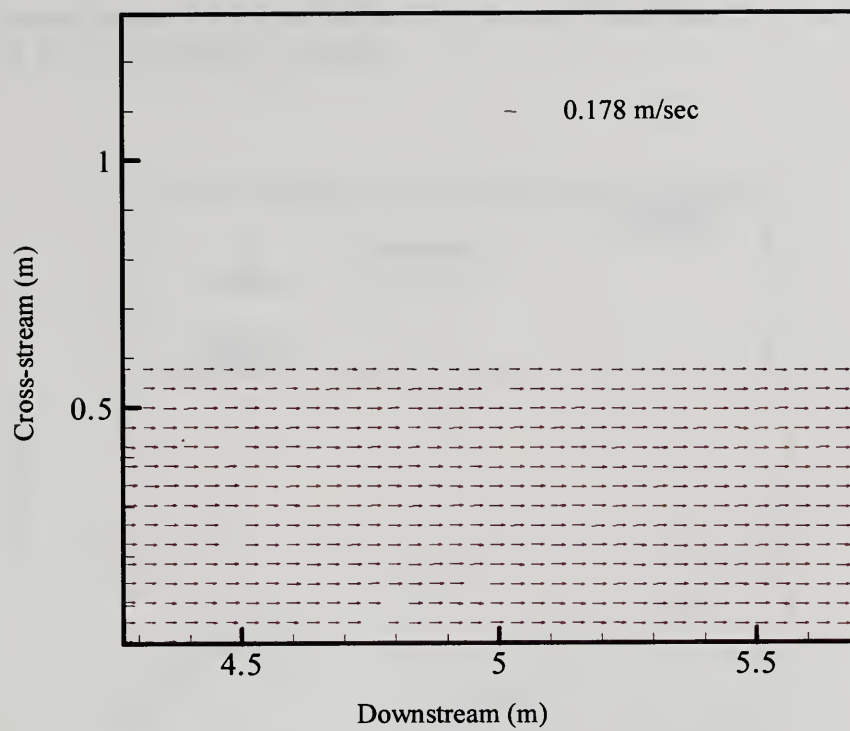


(c)

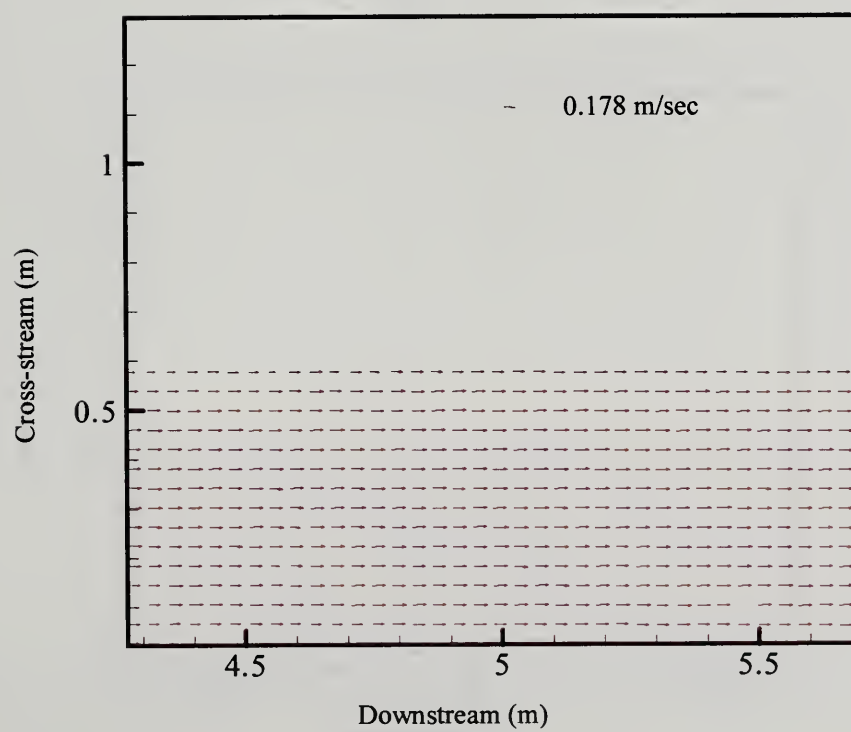


(d)





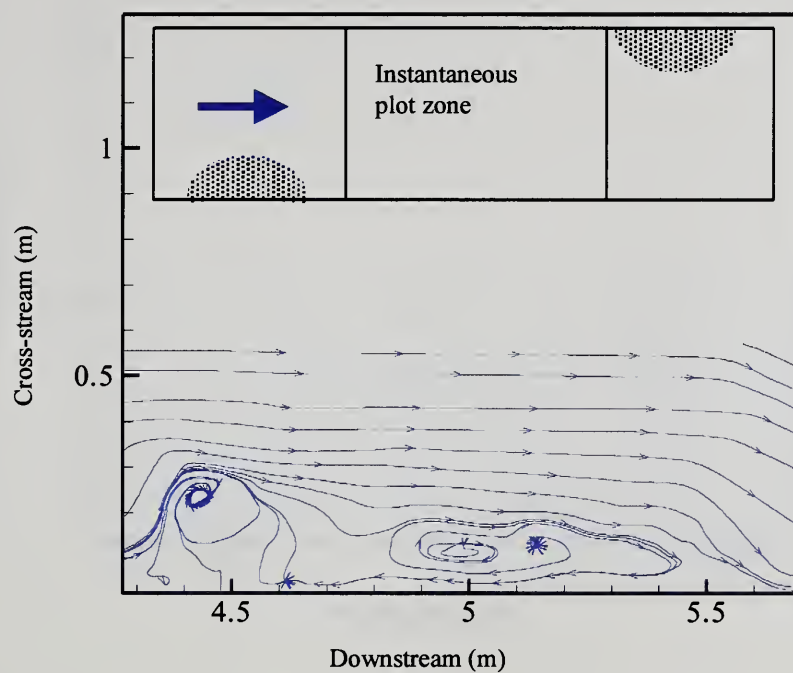
(e)



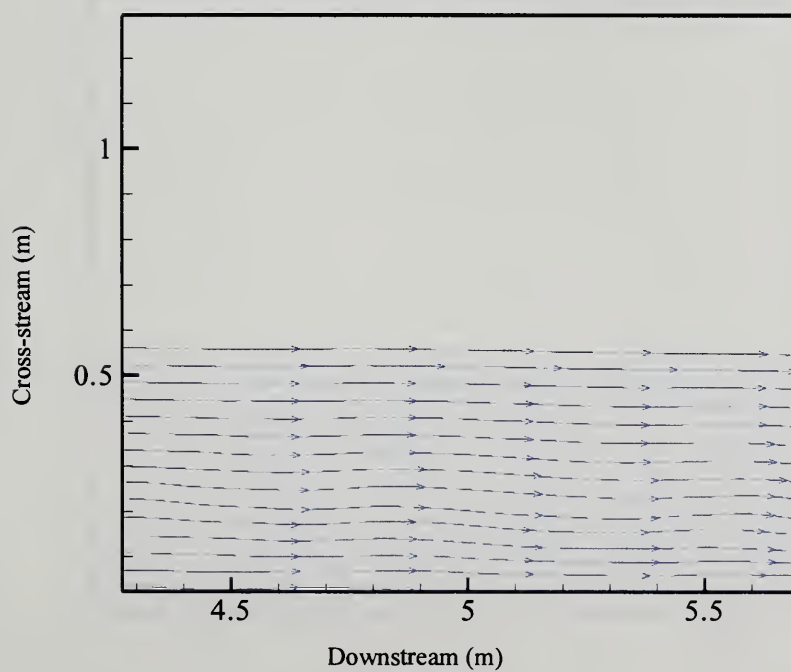
(f)



**Figure 4-9. Instantaneous flow paths for vegetation densities of (a) 10%; (b) 2.5%; (c) 0.6%; (d) 0.2%; (e) 0.04%; (f) 0.0%.**



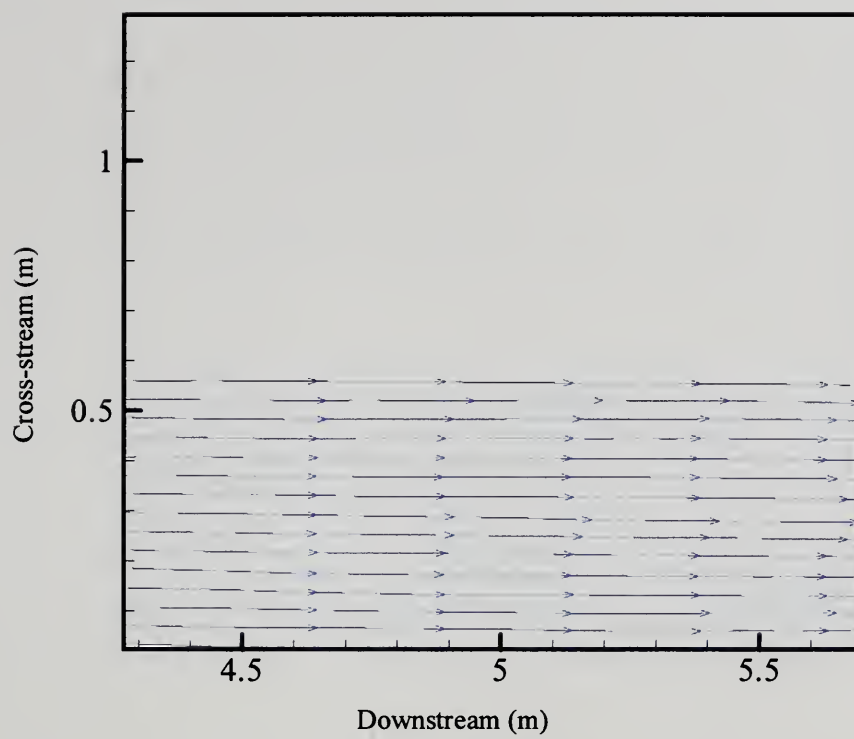
(a)



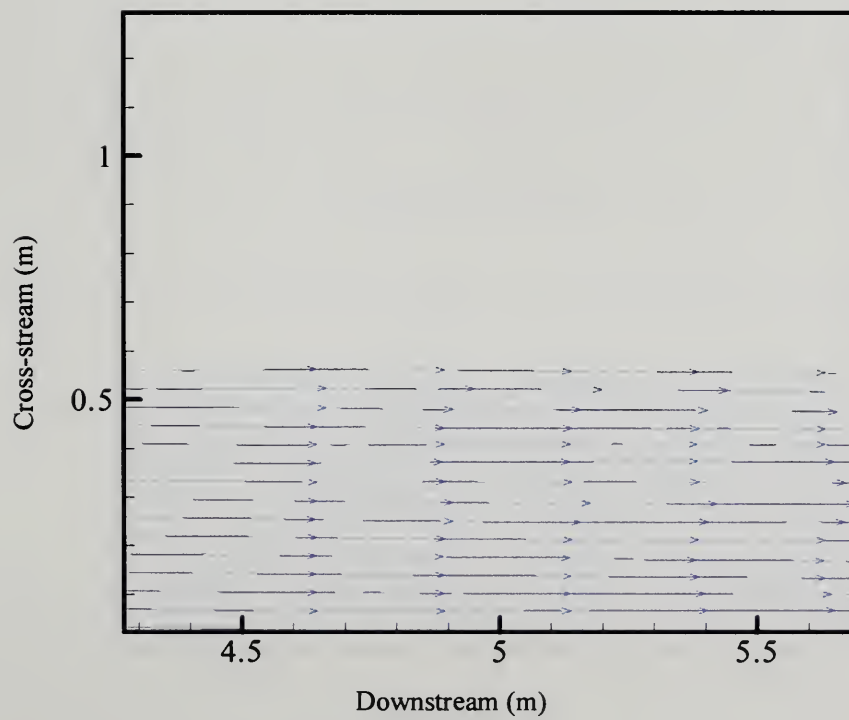
(b)





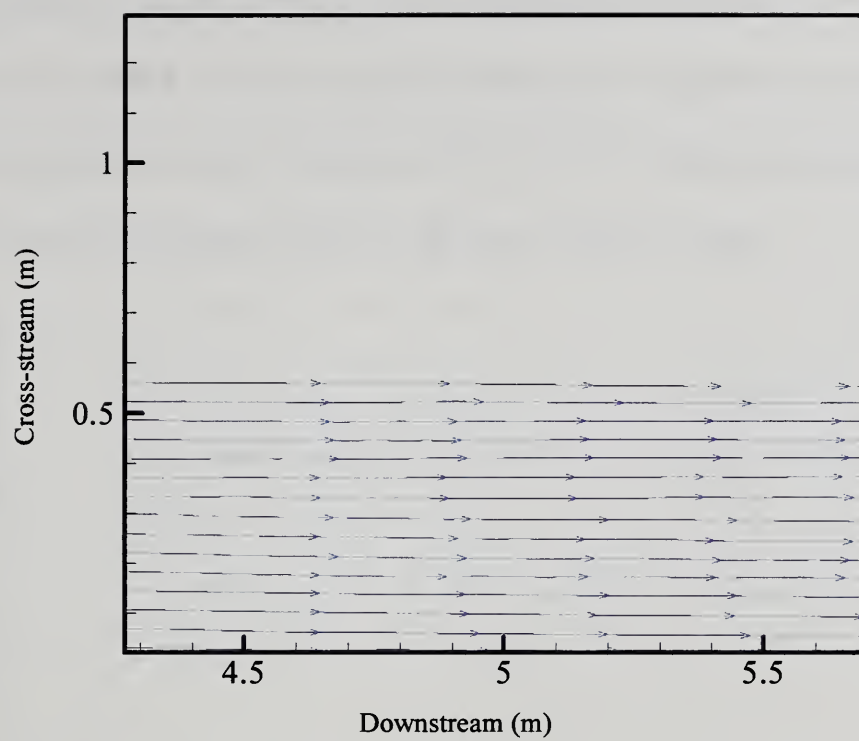


(c)

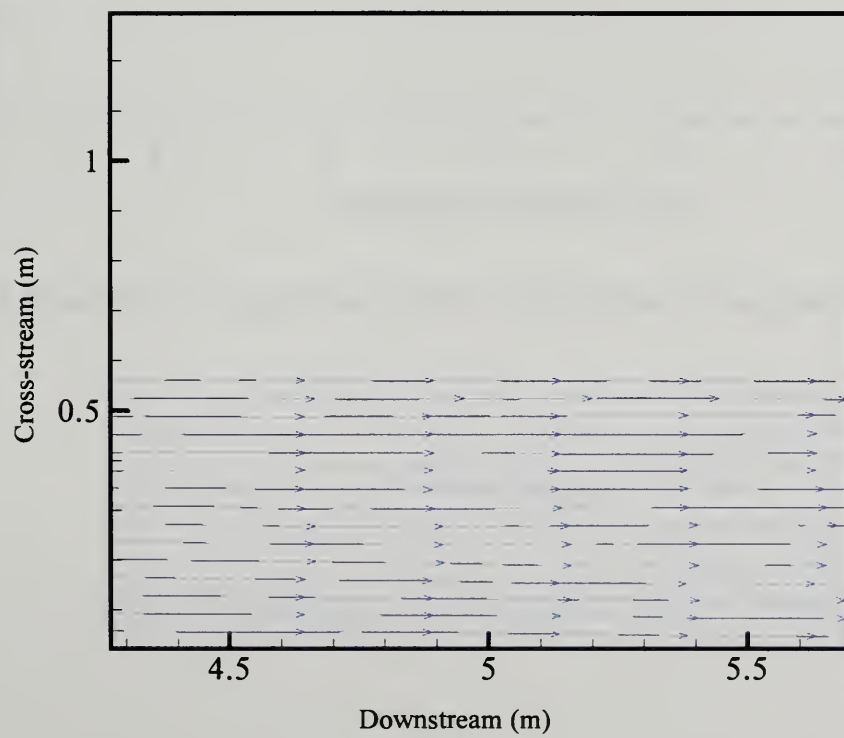


(d)





(e)



(f)



4.5 Graphical Results

The spatial average flow depth was determined by spatially averaging all depth measurements obtained for each vegetation density (see Appendix D). Flow depth increases as vegetation density increases (Fig 4-10). The change in depth in response to a change in vegetation density is high for the lower density values.

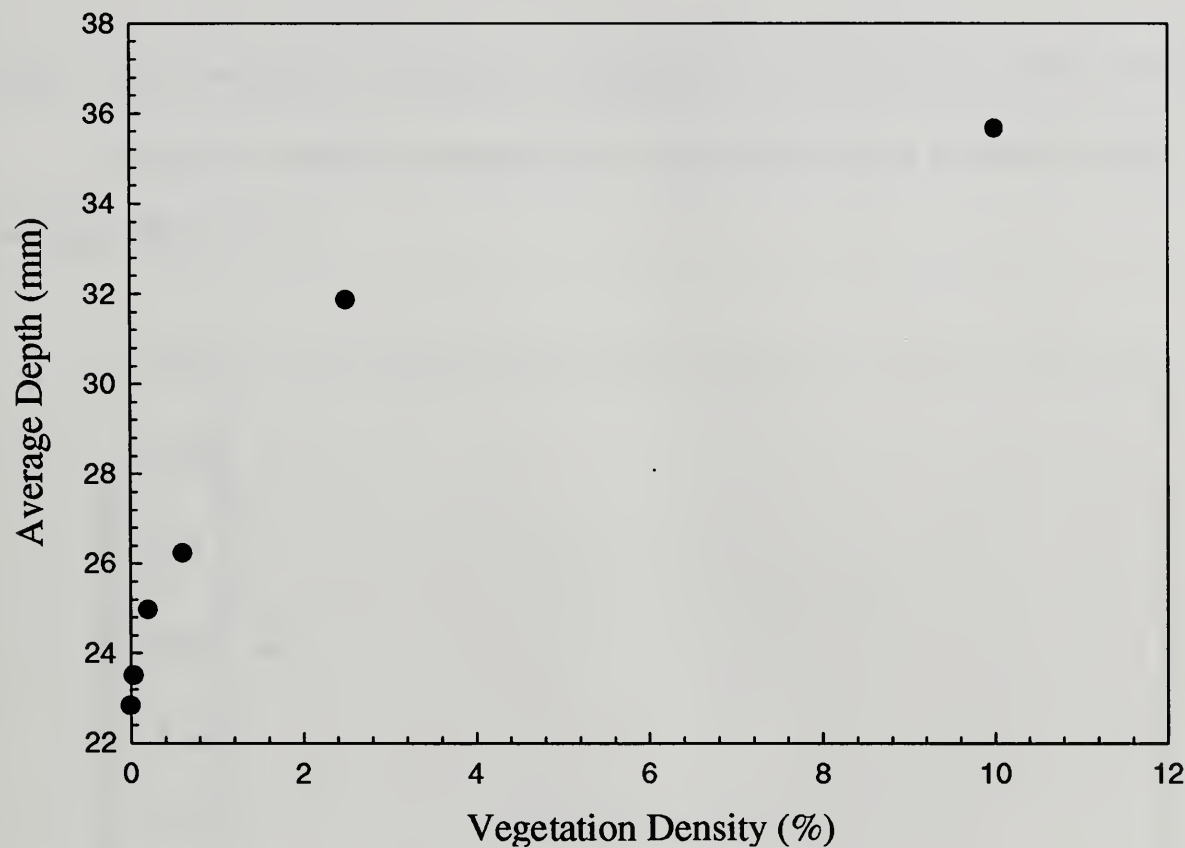


Figure 4-10. Spatially averaged flow depth as a function of vegetation density



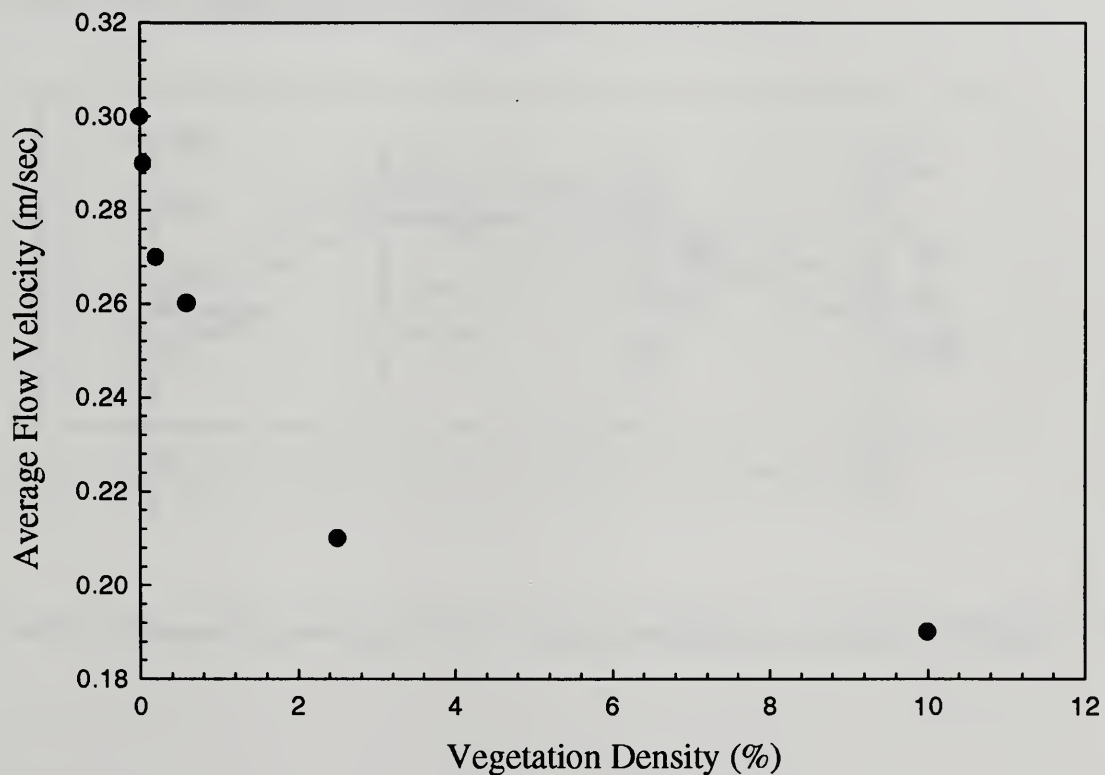


The spatially averaged flow velocity for each vegetation density was calculated by dividing the discharge by the cross-sectional area.

$$V_{avg} = \frac{Q}{A} \quad (\text{Eqtn. 4-1})$$

where,  $V_{avg}$  is average flow velocity;  $Q$  is discharge;  $A$  is cross-sectional area of the flow

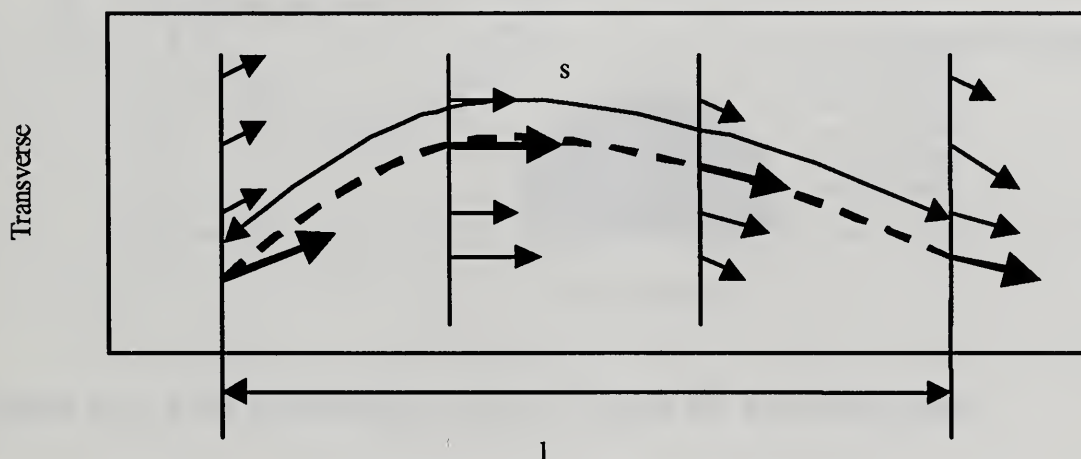
As expected, spatially averaged flow velocity decreases as vegetation density increases (Figure 4-11).



**Figure 4-11. Spatially averaged flow velocity as a function of vegetation density.**



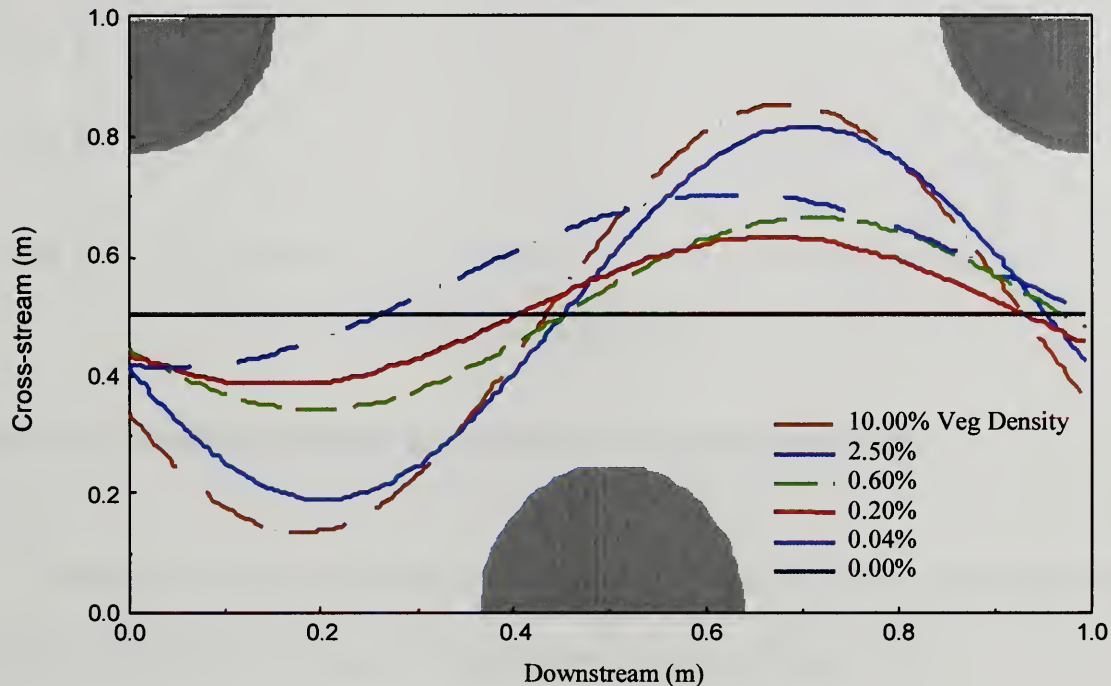
An important relationship is the one between flow sinuosity and vegetation density. To obtain sinuosity values, the spatially averaged flow vectors were analyzed using a FORTRAN computed code (see Appendix B) that finds the maximum velocity in the transverse flow direction. By using these downstream and cross-stream coordinates, the spatial distance between the highest velocity coordinates,  $s$ , was calculated. This distance,  $s$ , was then divided by the longitudinal difference between maximum velocity locations that were farthest upstream and farthest downstream,  $l$ . (Figure 4-12). Sinuosity was then calculated as  $s / l$ . This is consistent with the ASCE Manual No.54, (1977) definition of sinuosity as the ratio of the length flow pattern,  $s$ , to the valley length,  $l$ . Valley length is the straight length of the flume.



**Figure 4-12. Schematic drawing of the velocity profiles for a section of flume.**



The bold marked vectors are the highest magnitude of velocity along that transverse plane of flow and the dotted blue line shows the path of these high velocities. Paths of maximum velocities are given in Figure 4-13 for various vegetation densities.

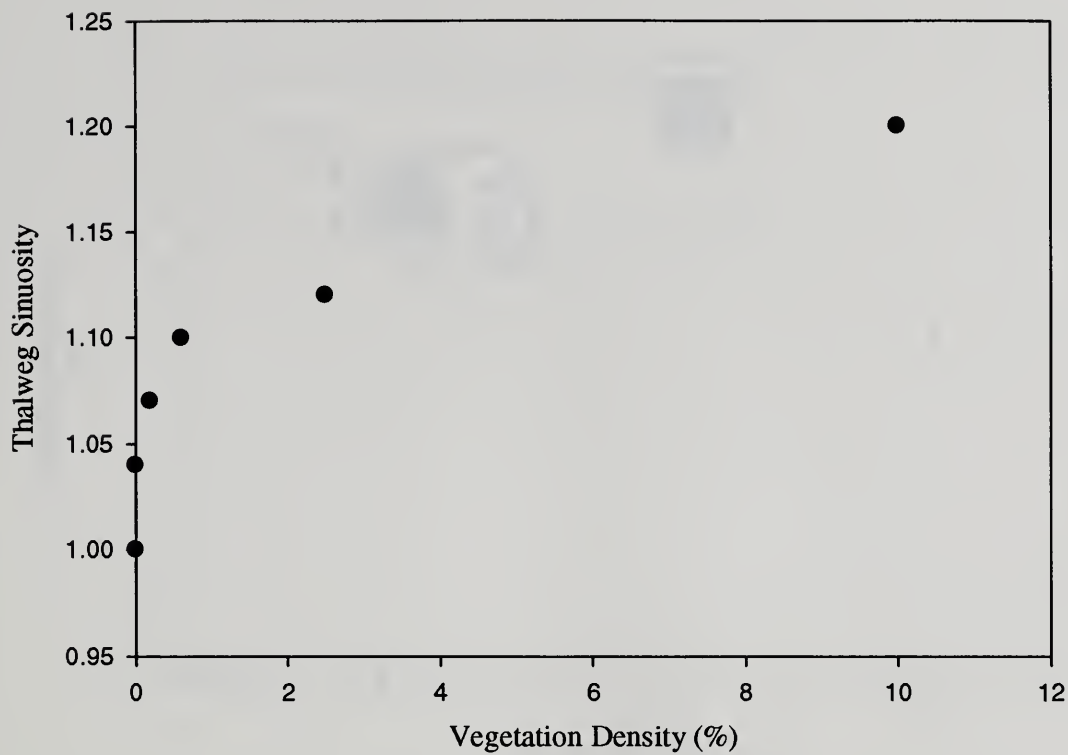


**Figure 4-13. Path of maximum velocity around the vegetated zones.**

The x-axis was normalized by the wavelength and the y-axis was normalized by the width of the flume. It can be seen from Figure 4-13 that the paths of maximum velocities are more sinuous for the higher vegetation density. It is assumed that the path of maximum velocity for flow in the 0.0% vegetation density case flows in a straight line in the middle of the flume. Derived values for thalweg sinuosity as a function of vegetation density are shown in Figure 4-14. The thalweg refers here to maximum velocity path of the flow.



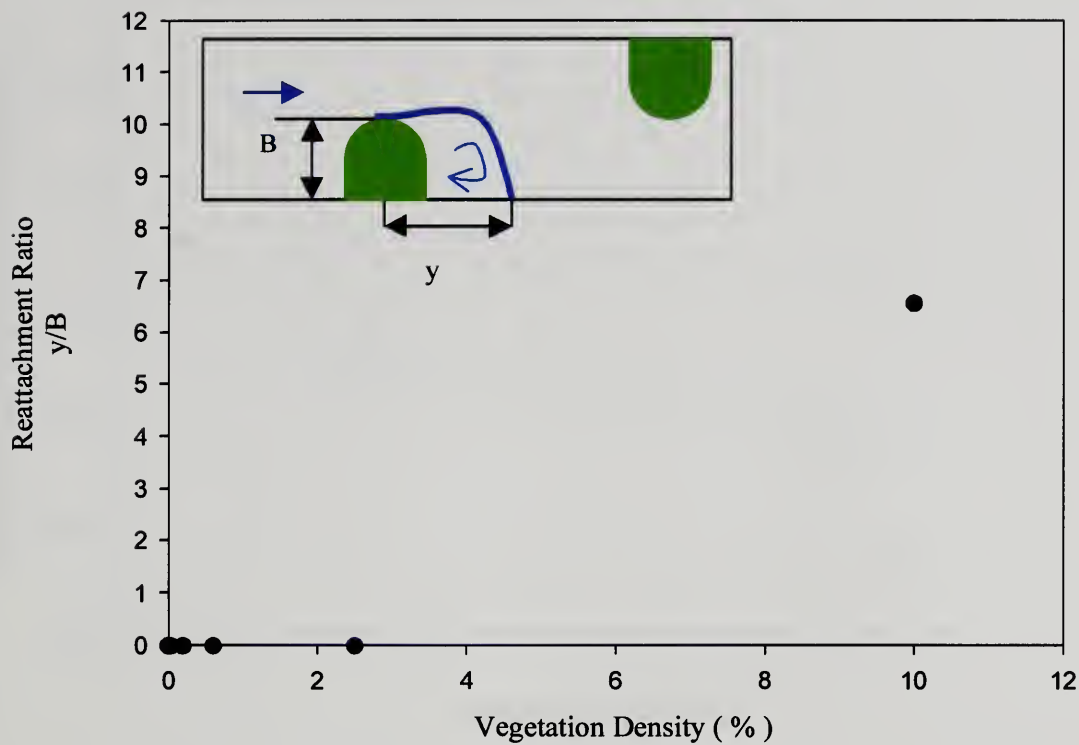




**Figure 4-14. Thalweg sinuosity as a function of vegetation density.**

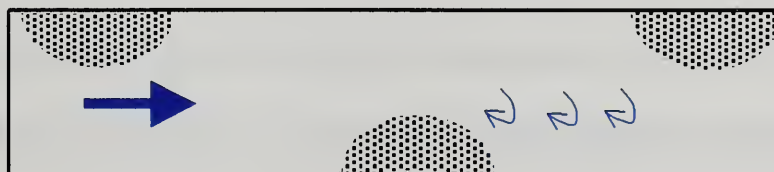
The length of flow separation as determined by the flow vector maps and video recording are plotted as a function of vegetation density in Figure 4-15.





**Figure 4-15. Reattachment Ratio as a function of vegetation density.**

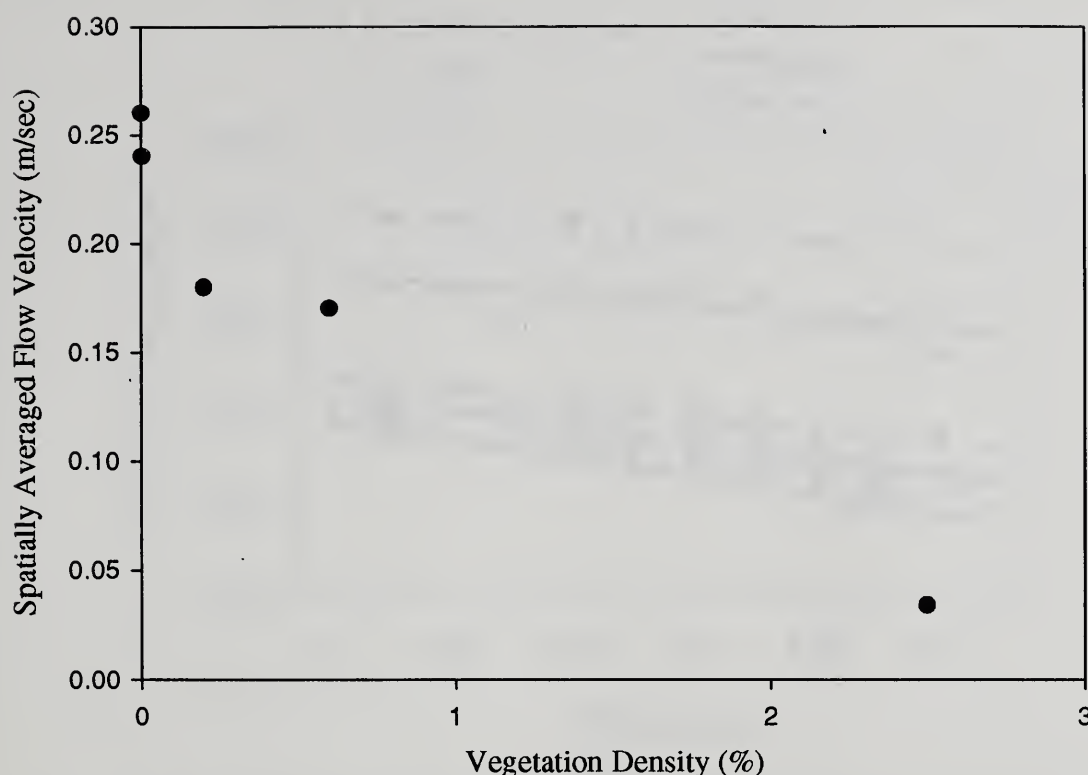
Note that reattachment was observed only for a vegetation density of 10%. Some shedding vortices were observed initiating from the apex of each vegetation zone (Figure 4-16).



**Figure 4-16. Schematic of shedding vortices after the vegetation zone.**

The spatially averaged flow velocities within the vegetation zone for each vegetation density are shown in Figure 4-17.





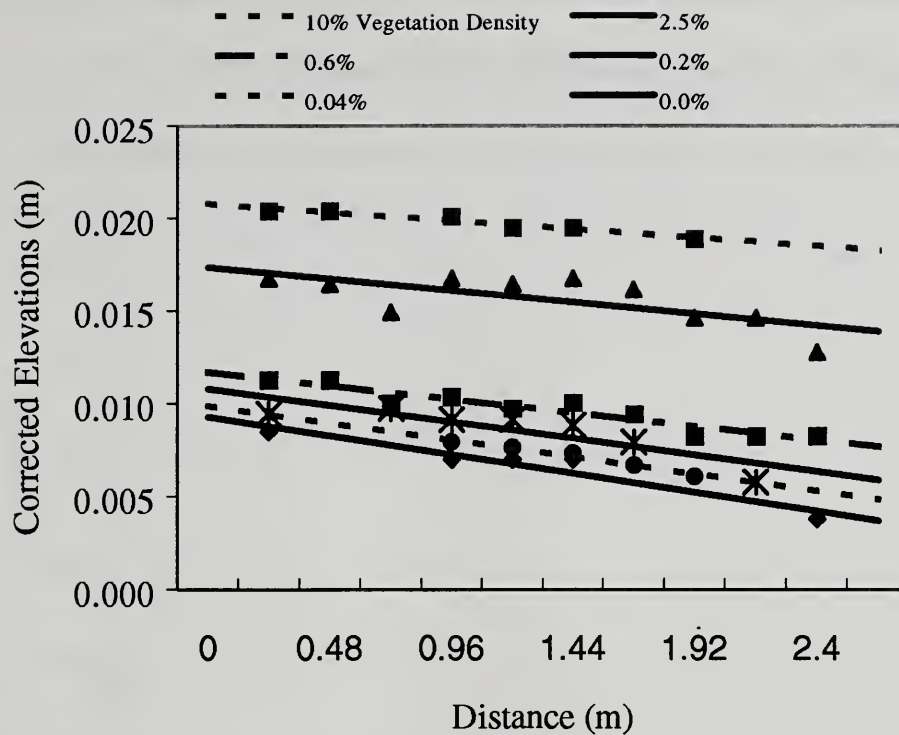
**Figure 4-17. Spatially averaged flow velocity within the vegetation zone as a function of vegetation density within the vegetation zone.**

To investigate the effect of vegetation density on average vegetation zone velocity, ten vegetation instantaneous flow vectors were averaged for each vegetation density. Again, the averaged velocity for the highest vegetation density could not be observed because the dense dowel configuration precluded the use of PIV.

Finally, drag coefficient was calculated for each vegetation density. First the water surface slope was calculated by using centerline flow depth from the middle of the flume between successive vegetation zones. These depths were corrected about a datum by subtracting out static water depth measurements. Then these centerline depth measurements were used to calculate slope by regression for each vegetation density (Figure 4-18).







**Figure 4-18. Slope regression plots as functions of depth and distance.**

The slope modification was done by eliminating the values that were effected by vegetation density or possible outliers. Using this slope determination and hydraulic radius, the mean shear velocity can be calculated from

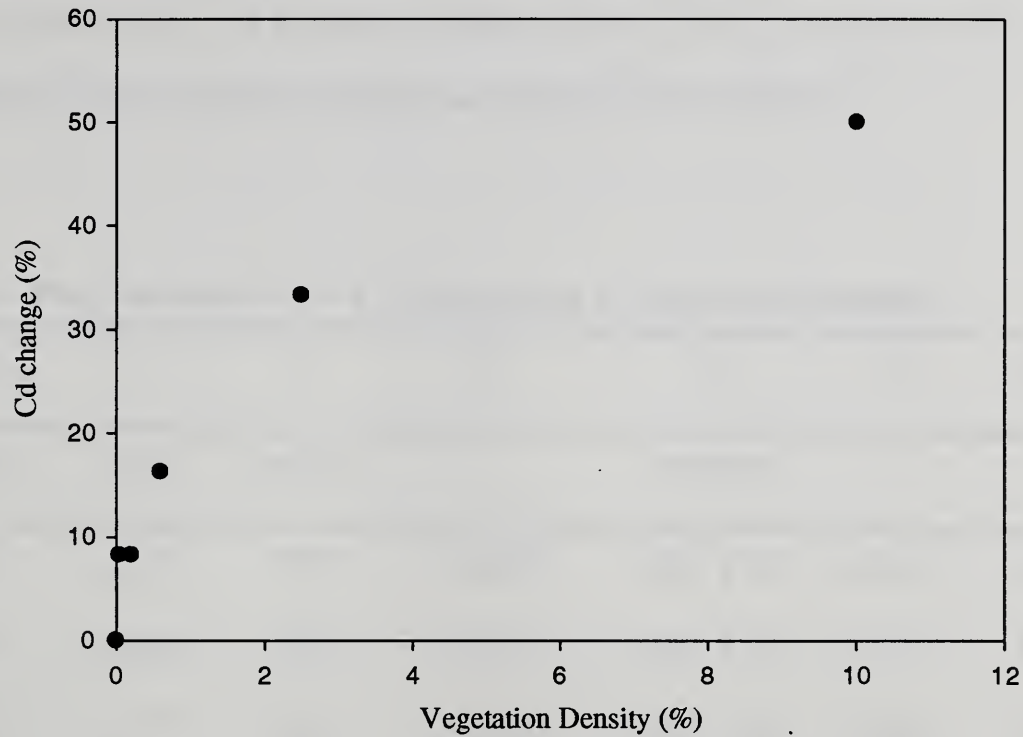
$$u_*^2 = gRS \quad (\text{Eqtn. 4-2})$$

where  $u_*$  is the shear velocity,  $g$  is acceleration due to gravity,  $R$  is the hydraulic radius, and  $S$  is the water surface slope. Although a global drag is technically defined for a uniform channel, it has seen useful even in this non-uniform channel as an indication of the increase of roughness caused by the addition of vegetation. A mean boundary drag coefficient can be defined as follows:

$$C_d = \frac{u_*^2}{\bar{u}^2} \quad (\text{Eqtn. 4-3})$$



where  $C_d$  is drag coefficient,  $u_*$  is shear velocity, and  $\bar{u}$  is spatially averaged flow velocity. Figure 4-19 plots this mean drag coefficient as a function of vegetation density.



**Figure 4-19. Drag coefficient change as a function of vegetation density.**

The relative change in the drag coefficient can be defined as

$$C_d^{\%} = \frac{C_d - C_{0.0\%}}{C_{0.0\%}} \times 100 \quad (\text{Eqtn. 4-4})$$

where,

$C_d^{\%}$  = Percent change in drag coefficient

$C_d$  = Coefficient of drag for specific density, d

$C_{0.0\%}$  = Coefficient of drag for 0.0% density



The drag coefficient shows an exponential increase as the density of vegetation increases. It can be seen that a small change in vegetation density results in a large change in resistance up to a vegetation density value of 0.2%. The bulk hydraulic parameters for each vegetation densities are summarized in Table 4-1.

**Table 4-1. The Calculated Flow Characteristics of Vegetation Densities.**

Density	d	$\bar{u}$	S	$u_*$	$C_d$	$C_{0.0\%}^{\%}$
(%)	(mm)	(m/sec)	-	(m/sec)	-	-
0.0	22.82	0.30	0.00052	$0.664 \times 10^{-2}$	0.0012	0.0
0.04	23.49	0.29	0.00051	$0.952 \times 10^{-2}$	0.0013	8.3
0.2	24.97	0.27	0.00042	$0.979 \times 10^{-2}$	0.0013	9.3
0.6	26.22	0.26	0.00038	$1.734 \times 10^{-2}$	0.0014	20.1
2.5	31.86	0.21	0.00026	$1.773 \times 10^{-2}$	0.0016	37.7
10	35.65	0.19	0.00020	$2.115 \times 10^{-2}$	0.0018	46.7





## 5 SUMMARY AND CONCLUSIONS

Introducing channel sinuosity into straight, degraded stream corridors has become an issue of growing concern due to a reduction of habitat and habitat resources. A physical model of vegetation in a straight channel was constructed to observe the effect of different vegetation densities on the surface flow structure. Flow conditions similar to incised streams were modeled. A series of dowels were placed in simulated semi-circular vegetation zones in alternating locations across the flume. The wavelength of these simulated vegetation zones was determined to be consistent with other similar studies.

A Particle Image Velocimetry (PIV) technique was used to obtain the surface velocity data.

The results obtained from this research are as follows:

Increasing vegetation density results in

- increased average thalweg velocity ,
- greater turning of the flow,
- greater flow circulation downstream of the vegetation zone,
- decreased average velocity inside vegetation zone,
- increasing sinuosity of flow,
- decreasing average flow velocity,
- increasing flow depth, and
- increasing resistance.



This study established a methodology to induce sinuosity in straight, degraded channels using vegetation and determined that placing roughness elements that simulate natural vegetation can significantly alter the flow direction. This research provides a simple idea for using vegetation in restoring meanders in straight rivers. Practical applications of the results will be left for future research.



## BIBLIOGRAPHY

- Ackers, P., and Charlton, F. G., "The Slope and Resistance of Small Meandering Channels," *Proceedings, The Institution of Civil Engineers*, London, Supplement 15 Paper 7362 S, 1970, pp.349-370.
- Ashida, K., and Michiue, H., "Study of Hydraulic Resistance and Bed-Load Transport rate in Alluvial Stream," *Proceedings of Japanese Society of Civil Engineers*, No. 206, 1972, pp. 59-69
- Barfield, B. J., Tollner, E.W., and Hayes, J. C., "Filtration of Sediment by Simulated Vegetation I. Steady-State Flow with Homogeneous Sediment", *Transactions, ASAE*, No. 4451, 1979, pp. 540-556
- Dabney, S. M., McGregor, K. C., Grissinger, E. H., and Foster, G. R., "Vegetative Barriers for Runoff and Sediment Control", *Integrated Resources Management and Landscape Modification for Environmental Protection* ed. Mitchell, J. K., St. Joseph, MI, ASAE, 1993, pp. 60-70
- Dunn, C., Lopez., F., and Garcia M., "Mean Flow and Turbulence in a Laboratory Channel with Simulated Vegetation", *Civil Engineering Studies, Hydraulic Engineering Series*, No: 51, October 1996a
- Dunn, C., Lopez., F., and Garcia, M., "Vegetation-Induced Drag: An Experimental Study", *Proceedings of the North American Water and Environment Congress*, ASCE, 1996b, New York.
- Edgar, D. E., "Geomorphic and Hydraulic Properties of Laboratory Rivers", M.S. thesis, Colorado State University, Ft. Collins, CO, 1973





- Edgar, D. E., and Rao, A. R., "An Empirical Analysis of Meandering and Flow Characteristics in Laboratory and Natural Banks", *Proceedings of the Conference River, River Meandering*, ASCE, New Orleans, October 1983, pp. 650-661
- Einstein, H. A., "Formulas for the Transportation of Bedload", *Transactions, ASCE*, Vol. 107, 1942, pp. 561-577
- Fairbanks, D. J., and Diplas, P., "Turbulence Characteristics of Flows Through Partially and Fully Submerged Vegetation", *Proceedings of the Wetland, Engineering and River Restoration Conference*, Denver, CO, March 1998
- Fredsoe, J., "Meandering and Braiding of Rivers", *Journal of Fluid Mechanics*, Vol. 84, Part 4, 1978, Great Britain, pp. 609-624
- Fukuoka, S., and Watanabe, A., "Horizontal Structure of Flood Flow with Dense Vegetation Clusters Along Main Channel Banks", *Environmental and Coastal Hydraulics: Protecting the Aquatic Habitat*, The 27<sup>th</sup> Congress of the International Association for Hydraulic Research, Vol.2, August 1997, pp. 1408-1413
- Graf, W. H., *Hydraulics of Sediment Transport*, McGraw-Hill Book Co., Inc., 1971, New York
- Hodges, C., Diplas, P., and Younos, T., "Resistance to Flow Through Riparian Wetlands", *Environmental and Coastal Hydraulics: Protecting the Aquatic Habitat*, The 27<sup>th</sup> Congress of the International Association for Hydraulic Research, Vol.2, August 1997, pp. 913-919



- Ikeda, S., "Prediction of Alternate Bar Wavelength and Height", *Journal of Hydraulic Engineering*, Vol. 110, No. 4, April 1982, pp. 371-386
- Khan H. R., "Laboratory Study of Alluvial River Morphology", Ph.D. thesis, Colorado State University, Ft. Collins, CO, 1971
- Li, R. M., and Shen, H. W., "Effect of Tall Vegetation on Flow and Sediment", *Journal of the Hydraulics Division, ASCE*, Vol. 99, No. 5, 1973, pp. 793-813
- Lopez., F., and Garcia, M., "Synchronized Measurement of Bed-Shear Stresses and Flow Velocity in Open Channels with Simulated Vegetation", *Proceedings of the North American Water and Environment Congress, ASCE*, 1996, New York.
- Lopez., F., and Garcia, M., "Open-Channel Flow through Simulated Vegetation: Suspended Sediment Transport Modeling", *Water Resources Research*, Vol. 34, No. 9, September 1998, pp. 2341-2352
- Neill, C. R., "Mean Velocity Criterion for Scour of Coarse Uniform Bed Material", *Proceedings of the 12<sup>th</sup> Congress*, Vol. III, International Association for Hydraulic Research, Fort Collins, CO, 1967, pp. 184-189
- Nezu, I., and Nakagawa, H., *Turbulence in Open Channel Flows*. A. A. Balkema: Rotterdam, 1993
- Northwest Hydraulic Consultants Inc., "Black Creek Watershed Geomorphic Analyses", for US Army Corps of Engineers Vicksburg District MS, Contract No: DACW38-87-D-0014, December 1987



- Northwest Hydraulic Consultants Inc., “Black and Fannegusha Creek Watershed Hydrologic and Hydraulic Analyses”, for US Army Corps of Engineers Vicksburg District MS, Contract No: DACW38-87-D-0014, April 1988
- Northwest Hydraulic Consultants Inc., “Long Creek Watershed Field Investigation and Geomorphic Analyses”, for US Army Corps of Engineers Vicksburg District MS, Contract No: DACW38-88-D-0102, May 1989
- Ohlander, C. A. “Defining the Sediment Trapping Characteristics of a Grassed Buffer”, *Proceedings of the Third Interagency Sedimentation Conference*, 1976, 2/77-2/81
- Okabe, T., Yuuki, T., Kojima, M., “Bed-Load Rate on Movable Beds Covered by Vegetation”, *Environmental and Coastal Hydraulics: Protecting the Aquatic Habitat*, The 27<sup>th</sup> Congress of the International Association for Hydraulic Research, Vol.2, August 1997, pp. 1397-1401
- Petryk, S., “Drag on Cylinders in Open Channel Flow”. Ph.D. thesis, Colorado State University, Fort Collins, CO, 1969
- Reid, O. R., and Whitaker, E. R., “Wind-Driven Flow of Water Influenced by a Canopy”, *Journal of the Waterways Harbors and Coastal Engineering Division, ASCE*, Vol. 102, No. WW1, February 1976, pp. 61-77
- Schumm, S. A., “Causes and Controls of Channel Incision”, in Darby, S. E., and Simon, A., *Incised River Channels: Process, Forms, Engineering and Management*, Wiley & Sons Ltd., 3<sup>rd</sup> ed., 1999, pp. 19-33
- Simoës, F., and Wang, S. Y., “Three-Dimensional Modeling of Compound Channels with Vegetated Flood Plains”, *Environmental and Coastal Hydraulics: Protecting the*





*Aquatic Habitat*, The 27<sup>th</sup> Congress of the International Association for Hydraulic Research, Vol.2, August 1997, pp. 809-814

Thompson, G. T., and Roberson, J. A., "A Theory of Flow Resistance for Vegetated Channels", *Transactions, ASAE*, 1976, pp. 288-293

Tollner, E.W., Barfield, B. J., Haan, C. T., and Kao T. Y., "Suspended Sediment Filtration Capacity of Simulated Vegetation", *Transactions, ASAE*, 1976, pp. 678-682

Tollner, E.W., Barfield, B. J., and Hayes, J. C., "Sedimentology of Erect Vegetal Filters", *Journal of the Hydraulics Division, ASCE*, Vol. 108, No. HY12, December 1982, pp. 1519-1531

Tsujimoto, T., Shimizu, Y., Kitamura, Y., and Okada, K., "Turbulent Open Channel Flow Over a Bed Covered by Rigid Vegetation", *Journal of Hydroscience and Hydraulic Engineering*, Vol. 10, 1992, pp. 13-25

Shimizu, Y., and Tsujimoto, T. "Suspended Sediment Concentration Affected by Organized Motion Near Vegetation Zone", *Environmental and Coastal Hydraulics: Protecting the Aquatic Habitat*, The 27<sup>th</sup> Congress of the International Association for Hydraulic Research, Vol.2, August 1997, pp. 1385-1389

Tsujimoto, T., "Sediment Sorting Near Vegetation Zone Along the Stream", *Environmental and Coastal Hydraulics: Protecting the Aquatic Habitat*, The 27<sup>th</sup> Congress of the International Association for Hydraulic Research, Vol.2, August 1997, pp. 1463-1469



*VidPIV 2.41, Installation and Operation Manual, Optical Flow Systems*, Edinburgh, UK,  
1995

Wilson, L. G., "Sediment removal from flood water", *Transactions, ASAE*, 1967, pp. 35-

37



## **APPENDIX A: FORTRAN CODE TO AVERAGE DATA**

The FORTRAN 90 code to time-average the vector data of each section recorded for each vegetation density.





```

PROGRAM AVEG
IMPLICIT NONE

```

```

C      Calculation of the time-averaged files for each section.
      INTEGER k,z,t,FCNT,KOUNT(1000,1000),inti,intj,intx(70,700)
+      ,factor,smallfactor,LNO,KOUNT2(700),inty(70,700)
      REAL VX(1000,1000),VY(1000,1000),VXinput(70,700),VYinput(70,700)
+      ,x(70,700),y(70,700),i,j,X2(700),Y2(700),VXINPUT2(700)
+      ,VYINPUT2(700)
      CHARACTER*25 INPUT(100)
C      Open input and output files:
C      Inputskn= input file for kno vegetation density and kth section
C      Opvks1 = output file for kno vegetation density and kth section
C      input file contains the name of the data files needed to be averaged
      OPEN(unit=1,file='inputs21.txt')
      OPEN(unit=2,file='opv2s1.txt')
C      Read all the file names and count the data file amount
      FCNT = 0
      DO k = 1, 70
          READ(1,*,End=3333)INPUT(k)
      FCNT = FCNT + 1
          WRITE(*,*)'Filecount=',FCNT
          WRITE(*,*)'INPUT(k)=',INPUT(k)
          WRITE(*,*) INPUT(k),FCNT
      ENDDO
C      Form a mesh in double dimension of longitudinal and transverse direction
C      Attain the velocity values from the data files to the mesh
C      And count the amount of the data assigned for every coordinate
3333 DO z = 1,FCNT
      OPEN(unit = 55,file = INPUT(z))
          WRITE(*,*)INPUT(z)
          DO t = 1,700
              READ(55,*,END=100)x(Z,t),y(z,t),VXinput(z,t)
+              ,VYinput(z,t)
100          ENDDO
      CLOSE(55,STATUS='keep')
      ENDDO
      factor=1000
      smallfactor=100
      DO 9999 i = 2.00,0.40,-0.01
          DO j = 0.010,0.590,0.001
              inti = nint(smallFACTOR * i)
              intj = nint(FACTOR * j)
              KOUNT(inti,intj) = 0.0
              VX(inti,intj) = 0.0
              VY(inti,intj) = 0.0
              DO z = 1,FCNT
                  DO t = 1,700
C      ***** CONVERSION FROM REAL TO INTEGER *****
                      intx(Z,t)=nint(smallFACTOR * X(Z,t))
                      inty(Z,t)=nint(FACTOR * Y(Z,t))
C      *****

```



```

        IF (inti.eq.intx(Z,t).and.intj.eq.inty(Z,t)) THEN
            VX(inti,intj) = VXinput(Z,t) + VX(inti,intj)
            VY(inti,intj) = VYinput(Z,t) + VY(inti,intj)
            KOOUNT(inti,intj) = KOOUNT(inti,intj) + 1
        ENDIF
    ENDDO
ENDDO
IF (KOOUNT(inti,intj).NE.0) THEN
    VX(inti,intj)=VX(inti,intj)/KOOUNT(inti,intj)
    VY(inti,intj)=VY(inti,intj)/KOOUNT(inti,intj)
ENDIF
IF (VX(inti,intj).ne.(0.0).AND.VY(inti,intj).ne.(0.0)) THEN
C Write average velocity values in both direction for each coordinate to the output file
    WRITE(2,'(F7.3,2X,F7.3,2X,F9.3,2X,F9.3,2X)')
        +      I,J,VX(inti,intj),VY(inti,intj)
    ENDIF
ENDDO
9999  ENDDO
      close(2)
      STOP
END

```



## **APPENDIX B: FORTRAN CODE TO CALCULATE SINUOSITY**

The FORTRAN 90 code determines the maximum velocity in transverse direction and calculates the spatial difference and longitudinal difference of the maximum velocity coordinates. Thus calculates the sinuosity values for each vegetation density.





```

      PROGRAM MAX
C      Analysing the time-averaged data and finding the maximum velocity values
C      in transverse direction. Calculation of the sinuosity.
      IMPLICIT NONE
      REAL I(6000),J(6000),VX(6000),M(1),VEL(5000),SUMYOL,YOL(5000)
+      ,VY(6000),TV(6000),V(6000),CHECK(100),MAXNUM(1)
+      ,IMAX(5000),JMAX(5000),D(5000),TOTI,THALL,SI
      INTEGER LNUM,KOUNT,K,P,L,T,INDEX,II,Z,Q
C      Open files
C      MV#.TXT = Input file for #nd vegetation density
C      MAXVEL#.TXT = Output file of total velocity & coordinates for #nd vegetation
C      density
C      SINUOUSVEG##.TXT = Output file of sinuosity for #nd vegetation density
      OPEN (UNIT=1, FILE='MV2.TXT')
      OPEN (UNIT=2, FILE='MAXVEL2.TXT')
      OPEN (UNIT=3, FILE='SINUOSVEG22.TXT')
C      Reading the file data in terms of;
C      I = X coordinate
C      J = Y coordinate
C      VX= Velocity in longitudinal direction
C      VY= Velocity in transverse direction
C      K = Assigned line number in each file
      LNUM=0
      DO K=1,4000
      READ(1,*,END=333)I(K),J(k),VX(k),VY(k)
      LNUM=LNUM+1
C      TV= Calculation of total velocity of the line number K
      TV(k)= SQRT(VX(k)**2+VY(k)**2)
      ENDDO
C      Write the solution to the output file as X, Y coordinate and total velocity
333  WRITE(2, "(2X,'IMAX',3X,'JMAX',3X,'VEL. MAX')")
      WRITE(2, "(4X,'m',5x,'m',6x,'m/sec')")
C      Scanning of the maximum velocity coordinate for each transverse direction
      L=1
      KOUNT=0
      Z=0
      DO P=L,LNUM
      KOUNT=KOUNT+1
      IF ((I(P+1)-I(P)).GE.0.020) THEN
      INDEX=0
      MAXNUM(1)=0
      DO II=1,25
      CHECK(II)=0
      ENDDO
      DO T=P+1-KOUNT,P
      INDEX=INDEX+1

```



```

        CHECK(INDEX)=TV(T)
        ENDDO
        MAXNUM=MAXLOC(CHECK)
        WRITE (2,5)I(P-KOUNT+MAXNUM(1)),J(P-KOUNT+MAXNUM(1))
+      ,CHECK(MAXNUM(1))
5    FORMAT(2X,F5.3,2X,F5.3,2X,F5.3)
        Z=Z+1
        IMAX(Z)=I(P-KOUNT+MAXNUM(1))
        JMAX(Z)=J(P-KOUNT+MAXNUM(1))
        L=P+1
        KOUNT=0
        ENDIF
        ENDDO
C      Write the maximum velocity coordinate for each transverse direction
C      and the velocity magnitude and the distance between each velocity coordinate
C      SUMYOL = Total distance between the first and the last maximum velocity coordinate.
        WRITE(3,"(5X,'#',6X,'IMAX',5X,'JMAX',6X,'DIST',5X,'TOT DIST')")
        SUMYOL=0
        DO 200 Q=1,1000
            IF ((IMAX(Q+1).EQ.0.0).AND.(JMAX(Q+1).EQ.0.0)) THEN
                GOTO 6666
            ELSE
                D(Q)=SQRT((IMAX(Q+1)-IMAX(Q))**2+((JMAX(Q+1)-JMAX(Q))**2))
                SUMYOL=SUMYOL+D(Q)
                WRITE(3,8) Q,IMAX(Q),JMAX(Q),D(Q),SUMYOL
8            FORMAT (4X,I3,4X,F6.3,4X,F6.3,4X,F6.3,4X,F6.3)
            ENDIF
C      SI = Sinuosity
C      THALL = Thalweg Length
C      TOTI = Total longitudinal difference
C      SI = THALL / TOTI
        THALL=SUMYOL
200  CONTINUE
6666  WRITE(3,9) Q,IMAX(Q),JMAX(Q)
9    FORMAT (4X,I3,4X,F6.3,4X,F6.3)
        TOTI=IMAX(Q) - IMAX(1)
        SI=(THALL/TOTI)
        WRITE(*,*)THALL,TOTI,SI
        WRITE(*,*) '
        WRITE(*,2)SI
        WRITE(3,*) '
        WRITE(3,2)SI
2    FORMAT('Sinuosity =',f6.3)
        PAUSE 'ENTER'
        WRITE(*,*)'THE JOB FINISHED COMPLETELY'
        STOP
        END

```



## **APPENDIX C: AVERAGED RAW DATA**

The averaged data of the whole sections recorded for each vegetation density. X is longitudinal direction, Y is transverse direction, VX is velocity in longitudinal direction, VY is velocity in transverse direction.





# Vegetation Density 10%

X	Y	V <sub>x</sub>	V <sub>y</sub>	X	Y	V <sub>x</sub>	V <sub>y</sub>	X	Y	V <sub>x</sub>	V <sub>y</sub>
0.440	0.036	-0.017	-0.011	0.570	0.272	0.153	-0.034	0.690	0.467	0.227	-0.034
0.440	0.076	-0.002	-0.006	0.570	0.311	0.206	-0.045	0.690	0.507	0.214	-0.023
0.440	0.115	0.014	-0.013	0.570	0.351	0.234	-0.035	0.690	0.546	0.158	-0.017
0.450	0.155	0.035	-0.028	0.570	0.390	0.257	-0.029	0.690	0.586	0.078	-0.011
0.450	0.194	0.070	-0.025	0.570	0.430	0.255	-0.029	0.720	0.032	0.001	-0.011
0.450	0.234	0.107	-0.027	0.570	0.469	0.255	-0.014	0.720	0.071	0.020	-0.011
0.450	0.273	0.138	-0.035	0.570	0.509	0.236	-0.012	0.720	0.111	0.036	-0.017
0.450	0.313	0.177	-0.023	0.570	0.548	0.194	-0.011	0.720	0.150	0.060	-0.040
0.450	0.353	0.205	-0.008	0.570	0.588	0.114	-0.012	0.730	0.190	0.107	-0.052
0.450	0.392	0.223	-0.004	0.600	0.034	-0.011	-0.010	0.730	0.229	0.136	-0.055
0.450	0.432	0.232	-0.009	0.600	0.073	0.017	-0.010	0.730	0.269	0.172	-0.073
0.450	0.471	0.256	-0.012	0.600	0.113	0.031	-0.010	0.730	0.308	0.199	-0.072
0.450	0.511	0.245	-0.010	0.610	0.152	0.060	-0.023	0.730	0.348	0.221	-0.078
0.450	0.550	0.202	-0.005	0.610	0.192	0.095	-0.029	0.730	0.388	0.230	-0.068
0.450	0.590	0.144	-0.011	0.610	0.231	0.122	-0.031	0.730	0.427	0.222	-0.048
0.480	0.035	-0.015	-0.012	0.610	0.271	0.165	-0.042	0.730	0.467	0.218	-0.038
0.480	0.075	-0.002	-0.006	0.610	0.310	0.208	-0.055	0.730	0.506	0.193	-0.023
0.490	0.115	0.020	-0.010	0.610	0.350	0.234	-0.040	0.730	0.546	0.141	-0.021
0.490	0.154	0.042	-0.023	0.610	0.390	0.250	-0.037	0.730	0.585	0.064	-0.011
0.490	0.194	0.081	-0.027	0.610	0.429	0.244	-0.035	0.760	0.031	0.005	-0.012
0.490	0.233	0.115	-0.025	0.610	0.469	0.247	-0.023	0.760	0.070	0.020	-0.010
0.490	0.273	0.153	-0.032	0.610	0.508	0.219	-0.014	0.760	0.110	0.058	-0.021
0.490	0.312	0.188	-0.035	0.610	0.548	0.179	-0.014	0.760	0.150	0.080	-0.049
0.490	0.352	0.214	-0.024	0.610	0.587	0.099	-0.011	0.760	0.189	0.117	-0.060
0.490	0.391	0.224	-0.019	0.640	0.033	-0.009	-0.011	0.760	0.229	0.145	-0.068
0.490	0.431	0.234	-0.017	0.640	0.072	0.016	-0.010	0.770	0.268	0.175	-0.075
0.490	0.471	0.241	-0.008	0.640	0.112	0.051	-0.016	0.770	0.308	0.201	-0.074
0.490	0.510	0.248	-0.009	0.640	0.152	0.062	-0.027	0.770	0.347	0.225	-0.077
0.490	0.550	0.214	-0.006	0.640	0.191	0.096	-0.030	0.770	0.387	0.232	-0.078
0.490	0.589	0.147	-0.011	0.650	0.231	0.135	-0.036	0.770	0.427	0.227	-0.070
0.520	0.035	-0.013	-0.012	0.650	0.270	0.183	-0.051	0.770	0.466	0.208	-0.033
0.520	0.074	0.000	-0.006	0.650	0.310	0.217	-0.054	0.770	0.506	0.182	-0.023
0.520	0.114	0.026	-0.008	0.650	0.349	0.231	-0.050	0.770	0.545	0.115	-0.021
0.520	0.153	0.054	-0.026	0.650	0.389	0.235	-0.042	0.770	0.585	0.040	-0.011
0.530	0.193	0.085	-0.032	0.650	0.428	0.239	-0.036	0.800	0.030	0.010	-0.013
0.530	0.233	0.112	-0.027	0.650	0.468	0.221	-0.023	0.800	0.070	0.028	-0.011
0.530	0.272	0.162	-0.034	0.650	0.508	0.207	-0.018	0.800	0.109	0.055	-0.017
0.530	0.312	0.210	-0.037	0.650	0.547	0.171	-0.015	0.800	0.149	0.089	-0.056
0.530	0.351	0.232	-0.037	0.650	0.587	0.088	-0.011	0.800	0.189	0.127	-0.077
0.530	0.391	0.241	-0.023	0.680	0.032	-0.003	-0.011	0.810	0.228	0.162	-0.081
0.530	0.430	0.255	-0.016	0.680	0.072	0.013	-0.011	0.810	0.268	0.188	-0.094
0.530	0.470	0.249	-0.008	0.680	0.111	0.042	-0.012	0.810	0.307	0.200	-0.096
0.530	0.509	0.235	-0.007	0.680	0.151	0.062	-0.034	0.810	0.347	0.218	-0.096
0.530	0.549	0.200	-0.009	0.690	0.190	0.103	-0.041	0.810	0.386	0.230	-0.094
0.530	0.589	0.111	-0.010	0.690	0.230	0.137	-0.045	0.810	0.426	0.225	-0.072
0.560	0.034	-0.012	-0.010	0.690	0.270	0.183	-0.061	0.810	0.465	0.215	-0.042
0.560	0.074	0.004	-0.006	0.690	0.309	0.209	-0.063	0.810	0.505	0.163	-0.027
0.560	0.113	0.024	-0.009	0.690	0.349	0.238	-0.063	0.810	0.545	0.079	-0.017
0.560	0.153	0.058	-0.025	0.690	0.388	0.239	-0.054	0.810	0.584	0.024	-0.010
0.570	0.192	0.090	-0.035	0.690	0.428	0.232	-0.047	0.840	0.030	0.020	-0.014
0.570	0.232	0.117	-0.030					0.840	0.069	0.046	-0.011



0.840	0.109	0.074	-0.020	1.000	0.027	0.078	-0.014	1.240	0.221	0.283	-0.088
0.840	0.148	0.117	-0.067	1.000	0.067	0.130	-0.019	1.240	0.261	0.100	-0.044
0.840	0.188	0.142	-0.083	1.000	0.106	0.165	-0.036	1.280	0.023	0.226	-0.013
0.850	0.227	0.173	-0.088	1.000	0.146	0.196	-0.098	1.280	0.062	0.283	-0.018
0.850	0.267	0.204	-0.107	1.000	0.185	0.222	-0.117	1.280	0.102	0.319	-0.018
0.850	0.307	0.216	-0.101	1.000	0.225	0.239	-0.125	1.280	0.141	0.340	-0.046
0.850	0.346	0.224	-0.107	1.000	0.264	0.237	-0.127	1.280	0.181	0.327	-0.047
0.850	0.386	0.222	-0.105	1.000	0.304	0.176	-0.101	1.280	0.220	0.276	-0.067
0.850	0.425	0.199	-0.083	1.000	0.344	0.113	-0.082	1.280	0.260	0.041	-0.008
0.850	0.465	0.163	-0.038	1.040	0.026	0.089	-0.014	1.320	0.022	0.237	-0.013
0.850	0.504	0.094	-0.019	1.040	0.066	0.143	-0.023	1.320	0.061	0.297	-0.018
0.850	0.544	0.017	-0.014	1.040	0.106	0.190	-0.033	1.320	0.101	0.337	-0.018
0.850	0.583	0.004	-0.008	1.040	0.145	0.220	-0.093	1.320	0.141	0.345	-0.030
0.880	0.029	0.026	-0.014	1.040	0.185	0.249	-0.125	1.320	0.180	0.347	-0.035
0.880	0.069	0.058	-0.012	1.040	0.224	0.251	-0.125	1.320	0.220	0.277	-0.044
0.880	0.108	0.098	-0.021	1.040	0.264	0.213	-0.115	1.320	0.259	0.035	-0.009
0.880	0.148	0.135	-0.068	1.040	0.303	0.135	-0.083	1.360	0.021	0.258	-0.012
0.880	0.187	0.173	-0.093	1.040	0.343	0.020	-0.036	1.360	0.061	0.310	-0.014
0.880	0.227	0.188	-0.101	1.080	0.026	0.112	-0.014	1.360	0.100	0.340	-0.017
0.880	0.266	0.209	-0.106	1.080	0.065	0.170	-0.022	1.360	0.140	0.356	-0.021
0.890	0.306	0.226	-0.107	1.080	0.105	0.212	-0.034	1.360	0.179	0.362	-0.029
0.890	0.345	0.213	-0.105	1.080	0.144	0.247	-0.089	1.360	0.219	0.291	-0.027
0.890	0.385	0.202	-0.101	1.080	0.184	0.265	-0.116	1.360	0.259	0.130	-0.013
0.890	0.425	0.149	-0.073	1.080	0.224	0.256	-0.118	1.360	0.298	0.004	-0.007
0.890	0.464	0.053	-0.019	1.080	0.263	0.194	-0.100	1.400	0.021	0.254	-0.012
0.890	0.504	0.022	-0.011	1.080	0.303	0.089	-0.065	1.400	0.060	0.308	-0.011
0.890	0.543	0.012	-0.010	1.120	0.025	0.147	-0.014	1.400	0.100	0.350	-0.011
0.890	0.583	0.000	-0.006	1.120	0.065	0.200	-0.022	1.400	0.139	0.363	-0.020
0.920	0.028	0.046	-0.014	1.120	0.104	0.231	-0.038	1.400	0.179	0.362	-0.019
0.920	0.068	0.083	-0.013	1.120	0.144	0.276	-0.100	1.400	0.218	0.320	-0.018
0.920	0.107	0.126	-0.023	1.120	0.183	0.292	-0.117	1.400	0.258	0.188	-0.010
0.920	0.147	0.153	-0.079	1.120	0.223	0.265	-0.113	1.400	0.298	0.037	-0.002
0.920	0.187	0.189	-0.102	1.120	0.262	0.215	-0.101	1.440	0.020	0.278	-0.012
0.920	0.226	0.213	-0.117	1.120	0.302	0.051	-0.037	1.440	0.060	0.322	-0.010
0.930	0.266	0.219	-0.118	1.160	0.024	0.172	-0.013	1.440	0.099	0.350	-0.011
0.930	0.305	0.213	-0.109	1.160	0.064	0.217	-0.021	1.440	0.139	0.365	-0.016
0.930	0.345	0.190	-0.104	1.160	0.104	0.270	-0.032	1.440	0.178	0.361	-0.018
0.930	0.384	0.133	-0.079	1.160	0.143	0.300	-0.083	1.440	0.218	0.314	-0.014
0.930	0.424	0.075	-0.067	1.160	0.183	0.302	-0.104	1.440	0.257	0.205	-0.009
0.930	0.463	0.010	-0.018	1.160	0.222	0.279	-0.110	1.440	0.297	0.082	-0.004
0.930	0.503	0.007	-0.009	1.160	0.262	0.231	-0.106	1.440	0.336	0.004	-0.001
0.930	0.543	0.003	-0.006	1.200	0.024	0.193	-0.013	1.480	0.019	0.291	-0.011
0.960	0.028	0.064	-0.014	1.200	0.063	0.237	-0.019	1.480	0.059	0.333	-0.009
0.960	0.067	0.105	-0.017	1.200	0.103	0.280	-0.031	1.480	0.098	0.361	-0.010
0.960	0.107	0.138	-0.033	1.200	0.142	0.304	-0.072	1.480	0.138	0.362	-0.011
0.960	0.146	0.166	-0.092	1.200	0.182	0.308	-0.090	1.480	0.178	0.360	-0.012
0.960	0.186	0.201	-0.107	1.200	0.222	0.272	-0.100	1.480	0.217	0.307	-0.011
0.960	0.225	0.224	-0.121	1.200	0.261	0.204	-0.090	1.480	0.257	0.213	-0.010
0.960	0.265	0.226	-0.124	1.240	0.023	0.204	-0.013	1.480	0.296	0.097	-0.002
0.960	0.305	0.199	-0.110	1.240	0.063	0.251	-0.016	1.480	0.336	0.019	-0.001
0.970	0.344	0.146	-0.089	1.240	0.102	0.299	-0.024	1.480	0.375	0.003	-0.005
0.970	0.384	0.091	-0.073	1.240	0.142	0.322	-0.057	1.480	0.415	0.002	-0.005
0.970	0.423	0.016	-0.030	1.240	0.181	0.315	-0.070	1.520	0.019	0.285	-0.009





1.520	0.058	0.338	-0.008	1.640	0.412	0.019	-0.001	1.800	0.133	0.342	-0.009
1.520	0.098	0.367	-0.009	1.640	0.452	0.013	-0.005	1.800	0.172	0.342	-0.010
1.520	0.137	0.383	-0.010	1.640	0.491	0.011	-0.006	1.800	0.212	0.292	-0.012
1.520	0.177	0.373	-0.011	1.640	0.531	0.009	-0.010	1.800	0.251	0.214	-0.009
1.520	0.216	0.305	-0.010	1.640	0.571	0.008	-0.012	1.800	0.291	0.100	-0.012
1.520	0.256	0.218	-0.007	1.680	0.016	0.303	-0.009	1.800	0.331	0.046	-0.011
1.520	0.296	0.103	-0.002	1.680	0.056	0.329	-0.007	1.800	0.370	0.023	-0.010
1.520	0.335	0.048	0.001	1.680	0.095	0.367	-0.007	1.800	0.410	0.020	-0.011
1.520	0.375	0.014	0.005	1.680	0.135	0.379	-0.008	1.800	0.449	0.019	-0.008
1.520	0.414	0.003	-0.002	1.680	0.174	0.368	-0.007	1.800	0.489	0.015	-0.010
1.520	0.454	0.001	-0.002	1.680	0.214	0.312	-0.006	1.800	0.528	0.014	-0.009
1.520	0.493	0.003	-0.008	1.680	0.253	0.207	-0.007	1.800	0.568	0.011	-0.011
1.520	0.533	0.007	-0.010	1.680	0.293	0.097	-0.008	1.840	0.013	0.285	-0.009
1.560	0.018	0.291	-0.008	1.680	0.333	0.034	-0.004	1.840	0.053	0.294	-0.006
1.560	0.058	0.327	-0.008	1.680	0.372	0.028	-0.002	1.840	0.093	0.339	-0.007
1.560	0.097	0.376	-0.008	1.680	0.412	0.022	-0.006	1.840	0.132	0.315	-0.008
1.560	0.137	0.388	-0.009	1.680	0.451	0.015	-0.006	1.840	0.172	0.316	-0.008
1.560	0.176	0.364	-0.010	1.680	0.491	0.013	-0.007	1.840	0.211	0.258	-0.009
1.560	0.216	0.308	-0.008	1.680	0.530	0.011	-0.010	1.840	0.251	0.197	-0.014
1.560	0.255	0.221	-0.005	1.680	0.570	0.011	-0.011	1.840	0.290	0.097	-0.012
1.560	0.295	0.108	-0.004	1.720	0.015	0.287	-0.007	1.840	0.330	0.043	-0.012
1.560	0.334	0.048	-0.002	1.720	0.055	0.327	-0.006	1.840	0.370	0.024	-0.011
1.560	0.374	0.028	0.005	1.720	0.095	0.359	-0.008	1.840	0.409	0.019	-0.010
1.560	0.414	0.015	0.013	1.720	0.134	0.358	-0.011	1.840	0.449	0.017	-0.010
1.560	0.453	0.008	-0.002	1.720	0.174	0.364	-0.010	1.840	0.488	0.015	-0.010
1.570	0.493	0.005	-0.004	1.720	0.213	0.303	-0.007	1.840	0.528	0.012	-0.009
1.570	0.532	0.005	-0.006	1.720	0.253	0.208	-0.006	1.840	0.567	0.010	-0.011
1.570	0.572	0.004	-0.010	1.720	0.292	0.094	-0.008	1.880	0.013	0.259	-0.009
1.600	0.017	0.291	-0.008	1.720	0.332	0.043	-0.006	1.880	0.052	0.294	-0.008
1.600	0.057	0.323	-0.008	1.720	0.371	0.026	-0.004	1.880	0.092	0.310	-0.012
1.600	0.096	0.375	-0.008	1.720	0.411	0.020	-0.004	1.880	0.132	0.290	-0.012
1.600	0.136	0.390	-0.008	1.720	0.451	0.017	-0.007	1.880	0.171	0.304	-0.009
1.600	0.176	0.373	-0.009	1.720	0.490	0.014	-0.008	1.880	0.211	0.263	-0.010
1.600	0.215	0.321	-0.007	1.720	0.530	0.012	-0.010	1.880	0.250	0.183	-0.013
1.600	0.255	0.211	-0.007	1.730	0.569	0.012	-0.011	1.880	0.290	0.080	-0.013
1.600	0.294	0.107	-0.005	1.760	0.015	0.304	-0.007	1.880	0.329	0.037	-0.009
1.600	0.334	0.044	-0.006	1.760	0.054	0.347	-0.007	1.880	0.369	0.025	-0.011
1.600	0.373	0.021	0.003	1.760	0.094	0.366	-0.008	1.880	0.408	0.017	-0.012
1.600	0.413	0.017	0.001	1.760	0.133	0.358	-0.009	1.880	0.448	0.015	-0.011
1.600	0.453	0.014	-0.002	1.760	0.173	0.360	-0.011	1.880	0.488	0.015	-0.010
1.600	0.492	0.013	-0.004	1.760	0.213	0.305	-0.011	1.880	0.527	0.014	-0.008
1.610	0.532	0.007	-0.010	1.760	0.252	0.222	-0.009	1.880	0.567	0.009	-0.011
1.610	0.571	0.007	-0.012	1.760	0.292	0.104	-0.008	1.910	0.012	0.249	-0.008
1.640	0.017	0.279	-0.010	1.760	0.331	0.052	-0.009	1.920	0.052	0.307	-0.002
1.640	0.056	0.328	-0.007	1.760	0.371	0.032	-0.009	1.920	0.091	0.351	-0.007
1.640	0.096	0.374	-0.008	1.760	0.410	0.020	-0.010	1.920	0.131	0.362	-0.007
1.640	0.135	0.390	-0.007	1.760	0.450	0.018	-0.009	1.920	0.170	0.281	-0.009
1.640	0.175	0.374	-0.008	1.760	0.489	0.016	-0.009	1.920	0.210	0.250	-0.015
1.640	0.215	0.308	-0.007	1.760	0.529	0.014	-0.010	1.920	0.250	0.153	-0.017
1.640	0.254	0.205	-0.007	1.760	0.569	0.012	-0.011	1.920	0.289	0.050	-0.018
1.640	0.294	0.096	-0.005	1.800	0.014	0.291	-0.010	1.920	0.329	0.033	-0.013
1.640	0.333	0.038	-0.007	1.800	0.054	0.330	-0.007	1.920	0.368	0.022	-0.014
1.640	0.373	0.027	-0.004	1.800	0.093	0.354	-0.007	1.920	0.408	0.018	-0.012





1.920	0.447	0.019	-0.012	2.080	0.182	0.292	-0.019	2.190	0.496	-0.001	-0.006
1.920	0.487	0.018	-0.010	2.080	0.221	0.254	-0.010	2.190	0.535	-0.002	-0.006
1.920	0.526	0.012	-0.009	2.080	0.261	0.176	-0.007	2.190	0.575	0.001	-0.009
1.920	0.566	0.008	-0.010	2.080	0.300	0.110	-0.006	2.230	0.024	0.264	-0.007
1.960	0.025	0.255	-0.007	2.080	0.339	0.063	-0.009	2.230	0.063	0.331	-0.005
1.960	0.065	0.313	-0.004	2.080	0.379	0.033	-0.005	2.230	0.103	0.352	-0.005
1.960	0.104	0.349	-0.003	2.080	0.418	0.019	-0.007	2.230	0.142	0.339	-0.006
1.960	0.143	0.322	0.000	2.080	0.457	0.009	-0.011	2.230	0.181	0.320	-0.011
1.960	0.183	0.297	-0.002	2.080	0.497	0.004	-0.007	2.230	0.221	0.275	-0.014
1.960	0.222	0.255	-0.006	2.080	0.536	0.003	-0.009	2.230	0.260	0.212	-0.008
1.960	0.261	0.196	-0.005	2.080	0.575	0.004	-0.009	2.230	0.299	0.134	-0.002
1.960	0.301	0.134	0.000	2.110	0.025	0.277	-0.007	2.230	0.338	0.086	-0.005
1.960	0.340	0.074	0.001	2.110	0.064	0.320	-0.005	2.230	0.378	0.045	-0.011
1.960	0.379	0.037	-0.005	2.110	0.103	0.325	-0.005	2.230	0.417	0.016	-0.014
1.960	0.419	0.018	-0.007	2.110	0.143	0.319	-0.005	2.230	0.456	0.000	-0.010
1.960	0.458	0.012	-0.008	2.110	0.182	0.306	-0.015	2.230	0.496	-0.004	-0.008
1.960	0.497	0.011	-0.009	2.110	0.221	0.269	-0.013	2.230	0.535	-0.003	-0.007
1.960	0.537	0.009	-0.011	2.110	0.260	0.188	-0.005	2.230	0.574	0.002	-0.009
1.960	0.576	0.007	-0.010	2.110	0.300	0.116	-0.003	2.270	0.024	0.247	-0.006
2.000	0.025	0.269	-0.006	2.110	0.339	0.072	-0.008	2.270	0.063	0.323	-0.004
2.000	0.065	0.302	-0.003	2.110	0.378	0.039	-0.006	2.270	0.102	0.345	-0.005
2.000	0.104	0.323	-0.004	2.120	0.418	0.020	-0.006	2.270	0.142	0.331	-0.007
2.000	0.143	0.336	-0.002	2.120	0.457	0.009	-0.010	2.270	0.181	0.312	-0.012
2.000	0.182	0.311	-0.012	2.120	0.496	0.005	-0.007	2.270	0.220	0.281	-0.011
2.000	0.222	0.256	-0.010	2.120	0.536	0.001	-0.008	2.270	0.260	0.216	-0.003
2.000	0.261	0.188	-0.002	2.120	0.575	0.002	-0.010	2.270	0.299	0.145	-0.001
2.000	0.300	0.130	-0.001	2.150	0.024	0.292	-0.007	2.270	0.338	0.098	-0.002
2.000	0.340	0.073	0.000	2.150	0.064	0.337	-0.004	2.270	0.378	0.058	-0.014
2.000	0.379	0.032	-0.007	2.150	0.103	0.349	-0.005	2.270	0.417	0.016	-0.013
2.000	0.418	0.016	-0.011	2.150	0.142	0.333	-0.006	2.270	0.456	0.003	-0.011
2.000	0.458	0.011	-0.009	2.150	0.182	0.313	-0.010	2.270	0.496	-0.006	-0.010
2.000	0.497	0.012	-0.010	2.150	0.221	0.270	-0.009	2.270	0.535	-0.004	-0.010
2.000	0.536	0.009	-0.011	2.150	0.260	0.206	-0.009	2.270	0.574	0.001	-0.009
2.000	0.576	0.004	-0.010	2.150	0.300	0.129	-0.002	2.310	0.023	0.245	-0.004
2.040	0.025	0.279	-0.006	2.150	0.339	0.081	-0.005	2.310	0.063	0.326	-0.002
2.040	0.064	0.317	-0.004	2.150	0.378	0.039	-0.004	2.310	0.102	0.340	-0.001
2.040	0.104	0.327	-0.005	2.150	0.418	0.018	-0.006	2.310	0.141	0.334	-0.003
2.040	0.143	0.321	-0.013	2.150	0.457	0.008	-0.008	2.310	0.181	0.307	-0.005
2.040	0.182	0.299	-0.017	2.150	0.496	0.001	-0.006	2.310	0.220	0.271	-0.004
2.040	0.222	0.255	-0.014	2.150	0.535	0.001	-0.007	2.310	0.259	0.219	-0.005
2.040	0.261	0.193	-0.010	2.150	0.575	0.004	-0.010	2.310	0.299	0.150	-0.003
2.040	0.300	0.130	-0.004	2.190	0.024	0.286	-0.006	2.310	0.338	0.097	0.001
2.040	0.340	0.072	-0.002	2.190	0.063	0.339	-0.004	2.310	0.377	0.062	-0.010
2.040	0.379	0.034	-0.004	2.190	0.103	0.353	-0.005	2.310	0.417	0.018	-0.011
2.040	0.418	0.019	-0.010	2.190	0.142	0.332	0.000	2.310	0.456	0.003	-0.011
2.040	0.457	0.012	-0.010	2.190	0.181	0.315	-0.003	2.310	0.495	-0.010	-0.012
2.040	0.497	0.011	-0.009	2.190	0.221	0.277	-0.008	2.310	0.535	-0.007	-0.011
2.040	0.536	0.006	-0.011	2.190	0.260	0.215	-0.008	2.310	0.574	-0.003	-0.008
2.040	0.575	0.004	-0.010	2.190	0.299	0.135	-0.004	2.350	0.023	0.284	-0.003
2.070	0.025	0.270	-0.006	2.190	0.339	0.080	-0.005	2.350	0.063	0.317	-0.001
2.070	0.064	0.310	-0.003	2.190	0.378	0.043	-0.009	2.350	0.102	0.358	-0.001
2.070	0.103	0.334	-0.006	2.190	0.417	0.017	-0.008	2.350	0.141	0.339	-0.006
2.080	0.143	0.314	-0.007	2.190	0.457	0.007	-0.009	2.350	0.181	0.318	-0.005



2.350	0.220	0.272	-0.006	2.470	0.534	-0.022	-0.009	2.630	0.258	0.243	0.009
2.350	0.259	0.224	-0.004	2.470	0.573	-0.013	-0.009	2.630	0.297	0.198	0.002
2.350	0.299	0.155	-0.003	2.510	0.022	0.280	-0.004	2.630	0.336	0.142	0.002
2.350	0.338	0.105	0.001	2.510	0.062	0.321	-0.002	2.630	0.376	0.089	0.000
2.350	0.377	0.058	-0.007	2.510	0.101	0.344	-0.002	2.630	0.415	0.046	-0.001
2.350	0.416	0.022	-0.007	2.510	0.140	0.329	0.002	2.630	0.454	0.021	-0.004
2.350	0.456	0.002	-0.011	2.510	0.180	0.315	0.001	2.630	0.494	-0.005	-0.005
2.350	0.495	-0.010	-0.011	2.510	0.219	0.287	-0.001	2.630	0.533	-0.020	-0.008
2.350	0.534	-0.014	-0.009	2.510	0.258	0.232	0.002	2.630	0.572	-0.020	-0.008
2.350	0.574	-0.004	-0.008	2.510	0.298	0.176	0.002	2.670	0.022	0.249	-0.004
2.390	0.023	0.284	-0.003	2.510	0.337	0.127	0.004	2.670	0.061	0.297	0.000
2.390	0.062	0.308	0.001	2.510	0.376	0.075	-0.005	2.670	0.100	0.330	0.001
2.390	0.102	0.337	-0.001	2.510	0.416	0.034	-0.006	2.670	0.140	0.332	0.001
2.390	0.141	0.342	-0.004	2.510	0.455	0.013	-0.007	2.670	0.179	0.323	0.001
2.390	0.180	0.312	-0.005	2.510	0.494	-0.009	-0.008	2.670	0.218	0.282	0.005
2.390	0.220	0.277	-0.003	2.510	0.534	-0.020	-0.010	2.670	0.257	0.245	0.006
2.390	0.259	0.219	-0.002	2.510	0.573	-0.016	-0.009	2.670	0.297	0.202	0.004
2.390	0.298	0.164	0.001	2.550	0.022	0.268	-0.005	2.670	0.336	0.141	0.005
2.390	0.338	0.110	0.000	2.550	0.062	0.314	-0.003	2.670	0.375	0.097	0.006
2.390	0.377	0.063	-0.006	2.550	0.101	0.342	-0.001	2.670	0.415	0.057	0.003
2.390	0.416	0.029	-0.012	2.550	0.140	0.336	0.004	2.670	0.454	0.022	-0.003
2.390	0.456	0.007	-0.011	2.550	0.179	0.312	0.007	2.670	0.493	-0.001	-0.002
2.390	0.495	-0.011	-0.009	2.550	0.219	0.290	0.004	2.670	0.533	-0.023	-0.005
2.390	0.534	-0.020	-0.007	2.550	0.258	0.246	0.006	2.670	0.572	-0.024	-0.007
2.390	0.574	-0.006	-0.008	2.550	0.297	0.186	0.004	2.700	0.021	0.248	-0.003
2.430	0.023	0.286	-0.004	2.550	0.337	0.129	0.005	2.700	0.061	0.292	0.001
2.430	0.062	0.321	-0.001	2.550	0.376	0.077	-0.003	2.700	0.100	0.328	0.001
2.430	0.101	0.354	-0.001	2.550	0.415	0.037	-0.001	2.700	0.139	0.325	0.003
2.430	0.141	0.344	-0.005	2.550	0.455	0.014	-0.006	2.700	0.179	0.317	0.003
2.430	0.180	0.317	-0.004	2.550	0.494	-0.004	-0.008	2.710	0.218	0.283	0.009
2.430	0.219	0.270	-0.001	2.550	0.533	-0.021	-0.011	2.710	0.257	0.239	0.017
2.430	0.259	0.221	-0.005	2.550	0.573	-0.015	-0.009	2.710	0.297	0.185	0.013
2.430	0.298	0.169	-0.001	2.590	0.022	0.267	-0.005	2.710	0.336	0.141	0.010
2.430	0.337	0.113	0.001	2.590	0.061	0.299	-0.002	2.710	0.375	0.102	0.010
2.430	0.377	0.066	-0.005	2.590	0.101	0.326	0.000	2.710	0.415	0.060	0.007
2.430	0.416	0.031	-0.011	2.590	0.140	0.328	0.002	2.710	0.454	0.020	-0.001
2.430	0.455	0.009	-0.010	2.590	0.179	0.316	0.004	2.710	0.493	-0.003	-0.001
2.430	0.495	-0.011	-0.009	2.590	0.219	0.288	0.009	2.710	0.533	-0.027	-0.003
2.430	0.534	-0.019	-0.009	2.590	0.258	0.242	0.011	2.710	0.572	-0.030	-0.007
2.430	0.573	-0.005	-0.009	2.590	0.297	0.191	0.008	2.740	0.021	0.248	-0.002
2.470	0.023	0.284	-0.005	2.590	0.337	0.138	0.004	2.740	0.060	0.289	0.002
2.470	0.062	0.325	-0.003	2.590	0.376	0.081	-0.004	2.740	0.100	0.330	0.002
2.470	0.101	0.351	0.000	2.590	0.415	0.042	-0.001	2.740	0.139	0.318	0.003
2.470	0.141	0.340	-0.002	2.590	0.455	0.016	-0.005	2.740	0.178	0.305	0.009
2.470	0.180	0.312	0.000	2.590	0.494	-0.004	-0.007	2.740	0.218	0.281	0.015
2.470	0.219	0.278	-0.001	2.590	0.533	-0.023	-0.010	2.740	0.257	0.234	0.016
2.470	0.259	0.227	0.001	2.590	0.572	-0.020	-0.009	2.740	0.296	0.198	0.019
2.470	0.298	0.175	0.003	2.630	0.022	0.259	-0.004	2.740	0.336	0.151	0.009
2.470	0.337	0.110	0.002	2.630	0.061	0.299	0.000	2.740	0.375	0.104	0.011
2.470	0.377	0.069	-0.006	2.630	0.100	0.338	0.000	2.740	0.414	0.058	0.008
2.470	0.416	0.034	-0.010	2.630	0.140	0.333	-0.001	2.740	0.454	0.023	0.002
2.470	0.455	0.008	-0.008	2.630	0.179	0.314	0.001	2.740	0.493	-0.004	-0.002
2.470	0.494	-0.012	-0.007	2.630	0.218	0.279	0.005	2.750	0.532	-0.020	-0.003





2.750	0.572	-0.028	-0.007	2.900	0.296	0.180	0.026	3.060	0.019	0.138	-0.004
2.780	0.021	0.232	-0.003	2.900	0.335	0.163	0.025	3.060	0.059	0.187	0.005
2.780	0.060	0.284	0.002	2.900	0.374	0.127	0.023	3.060	0.098	0.232	0.012
2.780	0.100	0.311	0.002	2.900	0.413	0.087	0.018	3.060	0.137	0.254	0.018
2.780	0.139	0.311	0.003	2.900	0.453	0.052	0.011	3.060	0.177	0.266	0.028
2.780	0.178	0.304	0.010	2.900	0.492	0.027	0.010	3.060	0.216	0.269	0.040
2.780	0.218	0.276	0.012	2.900	0.531	-0.001	0.010	3.060	0.255	0.256	0.054
2.780	0.257	0.254	0.020	2.900	0.571	-0.017	-0.005	3.060	0.295	0.223	0.052
2.780	0.296	0.198	0.015	2.940	0.020	0.180	-0.001	3.060	0.334	0.172	0.037
2.780	0.335	0.156	0.012	2.940	0.059	0.240	0.005	3.060	0.373	0.147	0.034
2.780	0.375	0.113	0.014	2.940	0.099	0.274	0.005	3.060	0.413	0.105	0.032
2.780	0.414	0.072	0.016	2.940	0.138	0.290	0.009	3.060	0.452	0.074	0.014
2.780	0.453	0.034	0.006	2.940	0.177	0.284	0.015	3.060	0.491	0.042	0.011
2.780	0.493	0.002	0.002	2.940	0.217	0.272	0.021	3.060	0.531	0.011	0.009
2.780	0.532	-0.017	0.002	2.940	0.256	0.242	0.031	3.060	0.570	-0.013	-0.004
2.780	0.571	-0.028	-0.007	2.940	0.295	0.201	0.029	3.100	0.019	0.103	-0.004
2.820	0.021	0.171	-0.008	2.940	0.335	0.157	0.026	3.100	0.059	0.154	0.008
2.820	0.060	0.265	-0.001	2.940	0.374	0.128	0.028	3.100	0.098	0.210	0.011
2.820	0.099	0.313	0.000	2.940	0.413	0.091	0.022	3.100	0.137	0.247	0.019
2.820	0.139	0.303	0.004	2.940	0.453	0.053	0.011	3.100	0.177	0.251	0.041
2.820	0.178	0.302	0.015	2.940	0.492	0.030	0.008	3.100	0.216	0.249	0.045
2.820	0.217	0.287	0.019	2.940	0.531	0.002	0.006	3.100	0.255	0.246	0.045
2.820	0.257	0.244	0.017	2.940	0.571	-0.018	-0.004	3.100	0.294	0.219	0.046
2.820	0.296	0.197	0.018	2.980	0.020	0.168	-0.003	3.100	0.334	0.183	0.040
2.820	0.335	0.159	0.015	2.980	0.059	0.230	0.005	3.100	0.373	0.156	0.040
2.820	0.375	0.114	0.020	2.980	0.099	0.258	0.007	3.100	0.412	0.108	0.029
2.820	0.414	0.072	0.015	2.980	0.138	0.280	0.017	3.100	0.452	0.083	0.021
2.820	0.453	0.038	0.008	2.980	0.177	0.276	0.020	3.100	0.491	0.050	0.013
2.820	0.493	0.011	0.006	2.980	0.216	0.274	0.030	3.100	0.530	0.019	0.013
2.820	0.532	-0.011	0.004	2.980	0.256	0.240	0.032	3.100	0.570	-0.007	-0.003
2.820	0.571	-0.020	-0.007	2.980	0.295	0.201	0.023	3.140	0.019	0.078	-0.005
2.860	0.021	0.175	-0.009	2.980	0.334	0.162	0.025	3.140	0.058	0.141	0.010
2.860	0.060	0.252	0.000	2.980	0.374	0.135	0.030	3.140	0.098	0.193	0.016
2.860	0.099	0.287	0.001	2.980	0.413	0.093	0.025	3.140	0.137	0.222	0.022
2.860	0.138	0.302	0.005	2.980	0.452	0.056	0.010	3.140	0.176	0.238	0.040
2.860	0.178	0.293	0.010	2.980	0.492	0.029	0.007	3.140	0.216	0.238	0.047
2.860	0.217	0.279	0.016	2.980	0.531	0.005	0.006	3.140	0.255	0.244	0.049
2.860	0.256	0.235	0.024	2.980	0.570	-0.016	-0.004	3.140	0.294	0.203	0.040
2.860	0.296	0.202	0.026	3.020	0.020	0.169	-0.004	3.140	0.334	0.175	0.043
2.860	0.335	0.161	0.021	3.020	0.059	0.212	0.004	3.140	0.373	0.147	0.046
2.860	0.374	0.117	0.021	3.020	0.098	0.253	0.010	3.140	0.412	0.114	0.040
2.860	0.414	0.078	0.014	3.020	0.138	0.275	0.014	3.140	0.452	0.087	0.025
2.860	0.453	0.043	0.008	3.020	0.177	0.287	0.021	3.140	0.491	0.059	0.017
2.860	0.492	0.017	0.008	3.020	0.216	0.277	0.034	3.140	0.530	0.029	0.017
2.860	0.532	-0.008	0.007	3.020	0.256	0.249	0.042	3.140	0.569	0.002	-0.003
2.860	0.571	-0.022	-0.006	3.020	0.295	0.215	0.039	3.180	0.019	0.023	-0.008
2.900	0.020	0.178	-0.002	3.020	0.334	0.167	0.030	3.180	0.058	0.061	0.009
2.900	0.060	0.239	0.003	3.020	0.374	0.139	0.029	3.180	0.097	0.168	0.033
2.900	0.099	0.291	0.003	3.020	0.413	0.105	0.029	3.180	0.137	0.210	0.067
2.900	0.138	0.297	0.009	3.020	0.452	0.068	0.013	3.180	0.176	0.235	0.068
2.900	0.178	0.295	0.012	3.020	0.491	0.035	0.010	3.180	0.215	0.249	0.084
2.900	0.217	0.275	0.021	3.020	0.531	0.010	0.009	3.180	0.255	0.202	0.072
2.900	0.256	0.223	0.025	3.020	0.570	-0.016	-0.005	3.180	0.294	0.198	0.074





3.180	0.333	0.170	0.101	3.330	0.183	0.084	0.060	3.530	0.576	0.138	0.007
3.180	0.373	0.136	0.101	3.330	0.223	0.136	0.093	3.570	0.339	0.227	0.084
3.180	0.412	0.063	0.066	3.330	0.262	0.185	0.100	3.570	0.378	0.325	0.114
3.180	0.451	0.028	0.015	3.330	0.301	0.219	0.108	3.570	0.418	0.321	0.091
3.180	0.491	0.022	0.016	3.330	0.341	0.234	0.116	3.570	0.457	0.284	0.051
3.180	0.530	0.022	0.024	3.330	0.380	0.208	0.104	3.570	0.496	0.247	0.033
3.180	0.569	0.011	-0.004	3.330	0.419	0.174	0.091	3.570	0.536	0.212	0.029
3.210	0.027	0.016	0.002	3.330	0.459	0.142	0.058	3.570	0.575	0.180	0.004
3.210	0.066	0.067	0.010	3.330	0.498	0.107	0.039	3.610	0.339	0.117	0.023
3.210	0.105	0.111	0.015	3.330	0.538	0.063	0.025	3.610	0.378	0.301	0.093
3.210	0.145	0.141	0.040	3.330	0.577	0.029	0.003	3.610	0.417	0.300	0.070
3.210	0.184	0.192	0.064	3.370	0.222	0.059	0.051	3.610	0.457	0.289	0.053
3.210	0.223	0.192	0.076	3.370	0.262	0.116	0.082	3.610	0.496	0.267	0.028
3.210	0.263	0.211	0.084	3.370	0.301	0.219	0.112	3.610	0.536	0.230	0.022
3.210	0.302	0.189	0.071	3.370	0.340	0.238	0.112	3.610	0.575	0.200	0.004
3.210	0.341	0.166	0.064	3.370	0.380	0.218	0.109	3.650	0.338	0.044	0.003
3.210	0.381	0.137	0.056	3.370	0.419	0.182	0.091	3.650	0.378	0.299	0.079
3.210	0.420	0.118	0.055	3.370	0.459	0.150	0.065	3.650	0.417	0.301	0.050
3.210	0.460	0.087	0.033	3.370	0.498	0.119	0.042	3.650	0.457	0.297	0.037
3.210	0.499	0.058	0.022	3.370	0.537	0.085	0.030	3.650	0.496	0.287	0.024
3.210	0.538	0.025	0.016	3.370	0.577	0.043	0.004	3.650	0.535	0.248	0.014
3.210	0.578	0.010	0.005	3.410	0.261	0.070	0.049	3.650	0.575	0.206	0.005
3.250	0.026	0.003	0.003	3.410	0.301	0.168	0.098	3.690	0.338	0.048	0.001
3.250	0.066	0.006	0.003	3.410	0.340	0.248	0.116	3.690	0.378	0.299	0.053
3.250	0.105	0.048	0.009	3.410	0.379	0.236	0.107	3.690	0.417	0.330	0.045
3.250	0.144	0.137	0.047	3.410	0.419	0.194	0.094	3.690	0.456	0.314	0.019
3.250	0.184	0.179	0.074	3.410	0.458	0.153	0.070	3.690	0.496	0.293	0.012
3.250	0.223	0.197	0.086	3.410	0.498	0.138	0.046	3.690	0.535	0.256	0.015
3.250	0.262	0.219	0.093	3.410	0.537	0.103	0.030	3.690	0.574	0.216	0.003
3.250	0.302	0.195	0.085	3.410	0.576	0.054	0.005	3.730	0.338	0.038	0.004
3.250	0.341	0.181	0.076	3.450	0.261	0.003	0.010	3.730	0.377	0.256	0.038
3.250	0.381	0.165	0.069	3.450	0.300	0.121	0.075	3.730	0.417	0.345	0.041
3.250	0.420	0.145	0.069	3.450	0.340	0.251	0.115	3.730	0.456	0.326	0.014
3.250	0.459	0.108	0.039	3.450	0.379	0.265	0.120	3.730	0.495	0.318	0.010
3.250	0.499	0.075	0.030	3.450	0.419	0.252	0.115	3.730	0.535	0.283	0.009
3.250	0.538	0.028	0.018	3.450	0.458	0.202	0.084	3.730	0.574	0.232	0.002
3.250	0.577	0.011	0.005	3.450	0.497	0.161	0.055	3.770	0.298	0.001	0.000
3.290	0.026	-0.001	0.002	3.450	0.537	0.132	0.035	3.770	0.338	0.048	0.005
3.290	0.065	0.003	0.002	3.450	0.576	0.091	0.007	3.770	0.377	0.264	0.027
3.290	0.105	0.016	0.006	3.490	0.300	0.117	0.058	3.770	0.416	0.342	0.023
3.290	0.144	0.057	0.033	3.490	0.340	0.228	0.102	3.770	0.456	0.353	0.012
3.290	0.183	0.130	0.075	3.490	0.379	0.298	0.123	3.770	0.495	0.338	0.006
3.290	0.223	0.190	0.103	3.490	0.418	0.267	0.107	3.770	0.534	0.301	0.007
3.290	0.262	0.206	0.101	3.490	0.458	0.223	0.081	3.770	0.574	0.255	0.001
3.290	0.302	0.201	0.098	3.490	0.497	0.177	0.047	3.810	0.298	0.013	0.000
3.290	0.341	0.204	0.094	3.490	0.536	0.161	0.037	3.810	0.337	0.167	0.002
3.290	0.380	0.178	0.090	3.490	0.576	0.106	0.007	3.810	0.377	0.271	0.010
3.290	0.420	0.151	0.076	3.530	0.339	0.245	0.101	3.810	0.416	0.352	0.011
3.290	0.459	0.122	0.049	3.530	0.379	0.301	0.117	3.810	0.455	0.372	0.008
3.290	0.498	0.089	0.027	3.530	0.418	0.291	0.097	3.810	0.495	0.361	0.004
3.290	0.538	0.043	0.018	3.530	0.457	0.248	0.057	3.810	0.534	0.319	0.006
3.290	0.577	0.020	0.005	3.530	0.497	0.213	0.043	3.810	0.574	0.267	0.000
3.330	0.144	0.005	0.006	3.530	0.536	0.187	0.034	3.850	0.258	0.001	-0.001



3.850	0.298	0.058	-0.002	4.000	0.257	0.023	0.009	4.120	0.571	0.283	-0.001
3.850	0.337	0.161	0.004	4.000	0.297	0.056	0.003	4.160	0.020	0.005	0.000
3.850	0.376	0.278	0.006	4.000	0.336	0.122	0.005	4.160	0.059	0.006	0.001
3.850	0.416	0.347	0.008	4.000	0.375	0.248	0.003	4.160	0.099	0.007	0.003
3.850	0.455	0.374	0.008	4.000	0.415	0.353	0.006	4.160	0.138	0.008	0.005
3.850	0.495	0.365	0.002	4.000	0.454	0.377	0.001	4.160	0.177	0.011	0.007
3.850	0.534	0.324	0.004	4.000	0.493	0.360	-0.001	4.160	0.217	0.013	0.008
3.850	0.573	0.274	0.000	4.000	0.533	0.319	-0.004	4.160	0.256	0.023	0.009
3.890	0.179	0.000	0.001	4.000	0.572	0.295	-0.001	4.160	0.295	0.053	0.014
3.890	0.219	0.000	0.002	4.040	0.021	0.003	0.000	4.160	0.335	0.121	-0.006
3.890	0.258	0.008	-0.019	4.040	0.060	0.005	0.002	4.160	0.374	0.216	-0.004
3.890	0.297	0.070	-0.009	4.040	0.099	0.009	0.001	4.160	0.414	0.311	-0.007
3.890	0.337	0.157	0.001	4.040	0.139	0.010	0.003	4.160	0.453	0.362	-0.003
3.890	0.376	0.273	0.005	4.040	0.178	0.010	0.007	4.160	0.492	0.355	-0.002
3.890	0.416	0.350	0.009	4.040	0.218	0.014	0.011	4.160	0.532	0.340	0.000
3.890	0.455	0.380	0.012	4.040	0.257	0.019	0.012	4.160	0.571	0.300	-0.002
3.890	0.494	0.365	0.007	4.040	0.296	0.045	0.010	4.200	0.020	0.007	0.001
3.890	0.534	0.330	0.004	4.040	0.336	0.120	0.003	4.200	0.059	0.007	0.002
3.890	0.573	0.282	-0.001	4.040	0.375	0.221	0.002	4.200	0.098	0.008	0.003
3.920	0.100	0.000	0.003	4.040	0.414	0.330	0.003	4.200	0.138	0.008	0.005
3.920	0.140	0.001	0.003	4.040	0.454	0.378	0.001	4.200	0.177	0.010	0.005
3.920	0.179	0.003	0.004	4.040	0.493	0.363	-0.001	4.200	0.216	0.016	0.005
3.920	0.218	0.005	0.008	4.040	0.533	0.339	0.000	4.200	0.256	0.026	0.004
3.920	0.258	0.022	0.006	4.040	0.572	0.259	0.000	4.200	0.295	0.060	0.000
3.920	0.297	0.069	-0.001	4.080	0.020	0.003	0.000	4.200	0.335	0.119	-0.003
3.920	0.337	0.144	-0.001	4.080	0.060	0.006	0.002	4.200	0.374	0.228	-0.002
3.920	0.376	0.263	0.003	4.080	0.099	0.007	0.003	4.200	0.413	0.314	-0.007
3.930	0.415	0.353	0.011	4.080	0.139	0.009	0.004	4.200	0.453	0.352	-0.002
3.930	0.455	0.383	0.011	4.080	0.178	0.010	0.007	4.200	0.492	0.361	-0.001
3.930	0.494	0.365	0.009	4.080	0.217	0.014	0.010	4.200	0.531	0.344	0.001
3.930	0.533	0.329	-0.002	4.080	0.257	0.019	0.011	4.200	0.571	0.295	-0.002
3.930	0.573	0.293	-0.001	4.080	0.296	0.044	0.006	4.240	0.019	0.006	0.001
3.960	0.021	0.001	0.001	4.080	0.335	0.121	0.005	4.240	0.059	0.006	0.002
3.960	0.061	0.002	0.002	4.080	0.375	0.227	0.001	4.240	0.098	0.006	0.004
3.960	0.100	0.003	0.003	4.080	0.414	0.332	0.000	4.240	0.137	0.008	0.005
3.960	0.139	0.005	0.005	4.080	0.454	0.380	-0.002	4.240	0.177	0.011	0.005
3.960	0.179	0.006	0.008	4.080	0.493	0.361	-0.001	4.240	0.216	0.018	0.005
3.960	0.218	0.009	0.008	4.080	0.532	0.334	0.000	4.240	0.256	0.032	0.004
3.960	0.257	0.021	0.010	4.080	0.572	0.262	-0.001	4.240	0.295	0.073	-0.002
3.960	0.297	0.066	0.001	4.120	0.020	0.003	0.001	4.240	0.334	0.145	-0.010
3.960	0.336	0.134	0.000	4.120	0.060	0.005	0.001	4.240	0.374	0.236	-0.002
3.960	0.376	0.254	0.004	4.120	0.099	0.007	0.003	4.240	0.413	0.325	-0.001
3.960	0.415	0.341	0.002	4.120	0.138	0.008	0.005	4.240	0.452	0.350	-0.001
3.960	0.454	0.381	0.005	4.120	0.178	0.011	0.008	4.240	0.492	0.360	0.000
3.960	0.494	0.362	0.006	4.120	0.217	0.014	0.009	4.240	0.531	0.344	0.001
3.960	0.533	0.322	0.001	4.120	0.256	0.020	0.009	4.240	0.571	0.306	-0.002
3.960	0.572	0.291	-0.001	4.120	0.296	0.049	0.006	4.280	0.019	0.004	0.001
4.000	0.021	0.003	0.001	4.120	0.335	0.121	-0.002	4.280	0.058	0.004	0.002
4.000	0.060	0.005	0.002	4.120	0.374	0.213	-0.003	4.280	0.098	0.004	0.003
4.000	0.100	0.006	0.002	4.120	0.414	0.319	-0.003	4.280	0.137	0.005	0.006
4.000	0.139	0.008	0.004	4.120	0.453	0.373	-0.003	4.280	0.177	0.009	0.005
4.000	0.178	0.009	0.008	4.120	0.493	0.348	-0.002	4.280	0.216	0.019	0.005
4.000	0.218	0.017	0.009	4.120	0.532	0.337	0.001	4.280	0.255	0.037	0.002





4.280	0.295	0.090	-0.002	4.440	0.018	0.005	-0.001	4.550	0.341	0.215	-0.014
4.280	0.334	0.162	-0.003	4.440	0.057	0.005	-0.004	4.550	0.380	0.274	-0.014
4.280	0.373	0.252	-0.006	4.440	0.097	0.004	-0.004	4.550	0.420	0.317	-0.007
4.280	0.413	0.330	-0.002	4.440	0.136	0.005	-0.002	4.550	0.459	0.331	0.000
4.280	0.452	0.372	-0.001	4.440	0.175	0.009	-0.002	4.550	0.498	0.343	-0.001
4.280	0.492	0.379	-0.001	4.440	0.215	0.019	-0.008	4.550	0.538	0.318	-0.001
4.280	0.531	0.351	-0.001	4.440	0.254	0.029	-0.010	4.550	0.577	0.263	-0.001
4.280	0.570	0.297	-0.003	4.440	0.294	0.055	0.031	4.590	0.026	-0.005	0.000
4.320	0.019	-0.001	0.001	4.440	0.333	0.141	0.018	4.590	0.066	-0.006	-0.002
4.320	0.058	0.001	0.001	4.440	0.372	0.212	-0.001	4.590	0.105	0.002	-0.002
4.320	0.098	0.001	0.004	4.440	0.412	0.325	-0.031	4.590	0.144	0.005	-0.002
4.320	0.137	0.003	0.006	4.440	0.451	0.366	-0.027	4.590	0.184	0.017	-0.005
4.320	0.176	0.009	0.005	4.440	0.490	0.350	-0.004	4.590	0.223	0.033	-0.006
4.320	0.216	0.020	0.000	4.440	0.530	0.322	-0.005	4.590	0.262	0.078	-0.013
4.320	0.255	0.044	0.003	4.440	0.569	0.234	-0.003	4.590	0.302	0.150	-0.013
4.320	0.294	0.098	-0.004	4.470	0.027	-0.002	0.000	4.590	0.341	0.218	-0.013
4.320	0.334	0.160	-0.003	4.470	0.066	-0.001	0.001	4.590	0.380	0.265	-0.009
4.320	0.373	0.257	-0.006	4.470	0.106	0.001	0.003	4.590	0.420	0.321	-0.009
4.320	0.412	0.328	0.008	4.470	0.145	0.006	0.003	4.590	0.459	0.343	-0.002
4.320	0.452	0.371	0.001	4.470	0.184	0.014	-0.003	4.590	0.498	0.353	-0.002
4.320	0.491	0.377	-0.001	4.470	0.224	0.030	-0.008	4.590	0.538	0.324	-0.002
4.320	0.531	0.341	-0.002	4.470	0.263	0.069	-0.006	4.590	0.577	0.279	-0.002
4.320	0.570	0.304	-0.002	4.470	0.302	0.143	-0.008	4.630	0.026	-0.005	0.001
4.360	0.018	-0.003	0.001	4.470	0.342	0.199	-0.006	4.630	0.065	-0.007	0.001
4.360	0.058	-0.003	0.002	4.470	0.381	0.274	-0.006	4.630	0.105	-0.002	-0.001
4.360	0.097	-0.001	0.003	4.470	0.420	0.313	-0.006	4.630	0.144	0.003	-0.005
4.360	0.137	0.000	0.006	4.470	0.460	0.330	-0.001	4.630	0.183	0.019	-0.008
4.360	0.176	0.008	0.006	4.470	0.499	0.317	0.001	4.630	0.223	0.040	-0.009
4.360	0.215	0.025	0.001	4.470	0.538	0.313	0.000	4.630	0.262	0.083	-0.012
4.360	0.255	0.046	0.003	4.470	0.577	0.263	0.000	4.630	0.301	0.162	-0.015
4.360	0.294	0.105	0.000	4.510	0.027	-0.003	0.000	4.630	0.341	0.234	-0.014
4.360	0.333	0.168	0.001	4.510	0.066	-0.005	-0.001	4.630	0.380	0.285	-0.012
4.360	0.373	0.253	-0.005	4.510	0.105	-0.001	0.002	4.630	0.419	0.320	-0.013
4.360	0.412	0.319	-0.002	4.510	0.145	0.005	0.003	4.630	0.459	0.337	-0.006
4.360	0.452	0.340	-0.002	4.510	0.184	0.016	-0.003	4.630	0.498	0.342	-0.003
4.360	0.491	0.364	-0.003	4.510	0.223	0.034	-0.008	4.630	0.537	0.317	-0.003
4.360	0.530	0.341	0.008	4.510	0.263	0.073	-0.009	4.630	0.577	0.261	-0.003
4.360	0.570	0.305	-0.001	4.510	0.302	0.147	-0.011	4.670	0.026	-0.005	0.001
4.400	0.018	-0.005	0.001	4.510	0.341	0.208	-0.012	4.670	0.065	-0.005	0.000
4.400	0.058	-0.004	0.001	4.510	0.381	0.272	-0.009	4.670	0.105	0.001	-0.002
4.400	0.097	-0.003	0.003	4.510	0.420	0.305	-0.014	4.670	0.144	0.009	-0.005
4.400	0.136	-0.002	0.005	4.510	0.459	0.316	-0.002	4.670	0.183	0.023	-0.010
4.400	0.176	0.007	0.005	4.510	0.499	0.334	0.000	4.670	0.223	0.048	-0.013
4.400	0.215	0.023	0.002	4.510	0.538	0.328	-0.001	4.670	0.262	0.091	-0.015
4.400	0.254	0.048	0.000	4.510	0.577	0.266	-0.001	4.670	0.301	0.170	-0.017
4.400	0.294	0.108	-0.001	4.550	0.027	-0.003	0.000	4.670	0.341	0.239	-0.017
4.400	0.333	0.161	-0.001	4.550	0.066	-0.005	-0.001	4.670	0.380	0.292	-0.022
4.400	0.373	0.241	0.005	4.550	0.105	-0.001	0.001	4.670	0.419	0.333	-0.016
4.400	0.412	0.304	0.003	4.550	0.145	0.003	0.000	4.670	0.459	0.340	-0.010
4.400	0.451	0.306	-0.003	4.550	0.184	0.015	-0.002	4.670	0.498	0.340	-0.002
4.400	0.491	0.320	-0.006	4.550	0.223	0.034	-0.005	4.670	0.537	0.316	-0.002
4.400	0.530	0.328	-0.002	4.550	0.262	0.076	-0.013	4.670	0.577	0.246	-0.003
4.400	0.569	0.286	-0.002	4.550	0.302	0.146	-0.010	4.710	0.026	-0.008	0.000





4.710	0.065	-0.008	0.000	4.830	0.340	0.244	-0.013	4.980	0.103	0.004	0.000
4.710	0.104	-0.001	-0.003	4.830	0.379	0.299	-0.014	4.980	0.142	0.019	-0.002
4.710	0.144	0.008	-0.005	4.830	0.418	0.330	-0.009	4.980	0.182	0.055	-0.006
4.710	0.183	0.024	-0.011	4.830	0.458	0.347	-0.004	4.980	0.221	0.095	-0.013
4.710	0.222	0.059	-0.019	4.830	0.497	0.347	-0.001	4.980	0.260	0.145	-0.019
4.710	0.262	0.100	-0.019	4.830	0.536	0.317	0.000	4.980	0.300	0.199	-0.013
4.710	0.301	0.170	-0.018	4.860	0.418	0.325	-0.007	4.980	0.339	0.240	-0.012
4.710	0.340	0.238	-0.017	4.860	0.458	0.335	-0.004	4.980	0.378	0.284	-0.014
4.710	0.380	0.287	-0.015	4.860	0.497	0.334	-0.002	4.980	0.418	0.311	-0.012
4.710	0.419	0.327	-0.018	4.860	0.536	0.309	-0.002	4.980	0.457	0.335	-0.006
4.710	0.458	0.347	-0.004	4.860	0.576	0.275	-0.002	4.980	0.496	0.337	-0.002
4.710	0.498	0.350	-0.003	4.870	0.025	-0.011	0.001	4.980	0.536	0.294	-0.004
4.710	0.537	0.308	-0.002	4.870	0.064	-0.010	0.002	4.980	0.575	0.260	-0.002
4.710	0.576	0.242	-0.002	4.870	0.104	-0.001	0.000	5.020	0.024	-0.021	0.000
4.750	0.026	-0.010	0.000	4.870	0.143	0.011	-0.004	5.020	0.064	-0.016	0.000
4.750	0.065	-0.006	-0.001	4.870	0.182	0.036	-0.007	5.020	0.103	0.004	-0.001
4.750	0.104	0.002	-0.002	4.870	0.222	0.077	-0.013	5.020	0.142	0.023	-0.003
4.750	0.144	0.008	-0.003	4.870	0.261	0.134	-0.016	5.020	0.181	0.058	-0.005
4.750	0.183	0.021	-0.008	4.870	0.300	0.189	-0.016	5.020	0.221	0.102	-0.014
4.750	0.222	0.056	-0.017	4.870	0.340	0.243	-0.013	5.020	0.260	0.142	-0.020
4.750	0.262	0.108	-0.019	4.870	0.379	0.299	-0.008	5.020	0.299	0.205	-0.019
4.750	0.301	0.174	-0.023	4.900	0.261	0.130	-0.010	5.020	0.339	0.257	-0.017
4.750	0.340	0.239	-0.018	4.900	0.300	0.183	-0.007	5.020	0.378	0.301	-0.015
4.750	0.379	0.286	-0.012	4.900	0.339	0.250	-0.013	5.020	0.417	0.325	-0.015
4.750	0.419	0.314	-0.016	4.900	0.379	0.288	-0.004	5.020	0.457	0.330	-0.008
4.750	0.458	0.325	-0.006	4.900	0.418	0.316	-0.001	5.020	0.496	0.336	-0.003
4.750	0.497	0.335	-0.002	4.900	0.457	0.338	-0.002	5.020	0.535	0.298	-0.003
4.750	0.537	0.313	-0.002	4.900	0.497	0.332	-0.002	5.020	0.575	0.259	-0.001
4.750	0.576	0.274	-0.002	4.900	0.536	0.309	-0.003	5.060	0.024	-0.023	0.000
4.790	0.025	-0.010	0.001	4.900	0.575	0.275	-0.002	5.060	0.063	-0.017	-0.002
4.790	0.065	-0.012	0.001	4.910	0.025	-0.013	0.001	5.060	0.103	0.005	-0.004
4.790	0.104	0.003	-0.001	4.910	0.064	-0.011	0.001	5.060	0.142	0.026	-0.009
4.790	0.143	0.012	-0.004	4.910	0.103	0.004	0.001	5.060	0.181	0.062	-0.010
4.790	0.183	0.031	-0.009	4.910	0.143	0.014	-0.001	5.060	0.221	0.107	-0.015
4.790	0.222	0.055	-0.013	4.910	0.182	0.040	-0.007	5.060	0.260	0.157	-0.019
4.790	0.261	0.113	-0.016	4.910	0.221	0.078	-0.011	5.060	0.299	0.200	-0.019
4.790	0.301	0.185	-0.020	4.940	0.064	-0.012	0.000	5.060	0.339	0.244	-0.021
4.790	0.340	0.235	-0.019	4.940	0.103	0.001	-0.001	5.060	0.378	0.293	-0.018
4.790	0.379	0.298	-0.013	4.940	0.143	0.016	-0.001	5.060	0.417	0.320	-0.016
4.790	0.419	0.325	-0.013	4.940	0.182	0.050	-0.008	5.060	0.457	0.327	-0.011
4.790	0.458	0.337	-0.007	4.940	0.221	0.089	-0.013	5.060	0.496	0.327	-0.003
4.790	0.497	0.342	-0.004	4.940	0.261	0.126	-0.010	5.060	0.535	0.293	-0.004
4.790	0.537	0.313	-0.002	4.940	0.300	0.200	-0.011	5.060	0.575	0.256	-0.002
4.790	0.576	0.277	-0.002	4.940	0.339	0.243	-0.014	5.100	0.024	-0.025	-0.001
4.820	0.576	0.283	-0.002	4.940	0.379	0.290	-0.008	5.100	0.063	-0.014	-0.003
4.830	0.025	-0.012	0.001	4.940	0.418	0.316	-0.007	5.100	0.102	0.014	-0.008
4.830	0.064	-0.010	0.002	4.940	0.457	0.341	-0.006	5.100	0.142	0.031	-0.012
4.830	0.104	0.001	0.000	4.940	0.496	0.335	-0.002	5.100	0.181	0.064	-0.013
4.830	0.143	0.009	-0.005	4.940	0.536	0.304	-0.003	5.100	0.220	0.116	-0.016
4.830	0.182	0.034	-0.008	4.940	0.575	0.263	-0.002	5.100	0.260	0.159	-0.019
4.830	0.222	0.067	-0.011	4.950	0.025	-0.015	0.001	5.100	0.299	0.195	-0.016
4.830	0.261	0.120	-0.019	4.980	0.024	-0.019	0.000	5.100	0.338	0.245	-0.020
4.830	0.300	0.184	-0.023	4.980	0.064	-0.013	-0.001	5.100	0.378	0.292	-0.018



5.100	0.417	0.320	-0.016	5.260	0.141	0.048	-0.017	5.380	0.455	0.297	-0.014
5.100	0.456	0.329	-0.007	5.260	0.180	0.081	-0.021	5.380	0.494	0.275	-0.012
5.100	0.496	0.322	-0.007	5.260	0.220	0.128	-0.023	5.380	0.534	0.241	-0.012
5.100	0.535	0.297	-0.004	5.260	0.259	0.164	-0.022	5.380	0.573	0.190	-0.004
5.100	0.574	0.261	-0.002	5.260	0.298	0.217	-0.028	5.420	0.022	-0.004	-0.002
5.140	0.024	-0.025	-0.001	5.260	0.338	0.257	-0.022	5.420	0.062	0.010	-0.007
5.140	0.063	-0.012	-0.003	5.260	0.377	0.291	-0.018	5.420	0.101	0.039	-0.015
5.140	0.102	0.010	-0.009	5.260	0.416	0.302	-0.014	5.420	0.140	0.062	-0.026
5.140	0.142	0.031	-0.012	5.260	0.456	0.315	-0.009	5.420	0.180	0.102	-0.030
5.140	0.181	0.066	-0.018	5.260	0.495	0.300	-0.005	5.420	0.219	0.145	-0.041
5.140	0.220	0.118	-0.022	5.260	0.534	0.270	-0.009	5.420	0.258	0.192	-0.042
5.140	0.260	0.158	-0.018	5.260	0.574	0.219	-0.002	5.420	0.298	0.216	-0.050
5.140	0.299	0.205	-0.013	5.300	0.023	-0.014	-0.002	5.420	0.337	0.222	-0.028
5.140	0.338	0.247	-0.017	5.300	0.062	-0.002	-0.006	5.420	0.376	0.256	-0.025
5.140	0.378	0.298	-0.014	5.300	0.101	0.024	-0.012	5.420	0.416	0.290	-0.030
5.140	0.417	0.320	-0.013	5.300	0.141	0.053	-0.021	5.420	0.455	0.285	-0.019
5.140	0.456	0.321	-0.008	5.300	0.180	0.087	-0.021	5.420	0.494	0.262	-0.013
5.140	0.496	0.324	-0.006	5.300	0.219	0.129	-0.025	5.420	0.533	0.230	-0.015
5.140	0.535	0.290	-0.004	5.300	0.259	0.170	-0.028	5.420	0.573	0.170	-0.005
5.140	0.574	0.253	-0.002	5.300	0.298	0.221	-0.035	5.460	0.022	0.002	-0.003
5.180	0.023	-0.024	-0.001	5.300	0.337	0.251	-0.026	5.460	0.061	0.019	-0.008
5.180	0.063	-0.012	-0.003	5.300	0.377	0.293	-0.018	5.460	0.101	0.050	-0.014
5.180	0.102	0.016	-0.008	5.300	0.416	0.301	-0.019	5.460	0.140	0.071	-0.030
5.180	0.141	0.037	-0.012	5.300	0.455	0.305	-0.009	5.460	0.179	0.110	-0.038
5.180	0.181	0.080	-0.018	5.300	0.495	0.295	-0.005	5.460	0.219	0.147	-0.042
5.180	0.220	0.124	-0.021	5.300	0.534	0.268	-0.009	5.460	0.258	0.187	-0.046
5.180	0.259	0.163	-0.023	5.300	0.573	0.220	-0.003	5.460	0.297	0.228	-0.053
5.180	0.299	0.211	-0.019	5.340	0.023	-0.011	-0.002	5.460	0.337	0.255	-0.047
5.180	0.338	0.254	-0.021	5.340	0.062	0.001	-0.007	5.460	0.376	0.279	-0.039
5.180	0.377	0.292	-0.017	5.340	0.101	0.032	-0.013	5.460	0.415	0.285	-0.035
5.180	0.417	0.312	-0.017	5.340	0.141	0.054	-0.020	5.460	0.455	0.277	-0.017
5.180	0.456	0.319	-0.006	5.340	0.180	0.089	-0.026	5.460	0.494	0.252	-0.016
5.180	0.495	0.320	-0.006	5.340	0.219	0.133	-0.032	5.460	0.533	0.217	-0.017
5.180	0.535	0.287	-0.006	5.340	0.259	0.174	-0.029	5.460	0.573	0.152	-0.006
5.180	0.574	0.248	-0.003	5.340	0.298	0.219	-0.036	5.500	0.022	0.004	-0.002
5.220	0.023	-0.018	-0.002	5.340	0.337	0.263	-0.034	5.500	0.061	0.033	-0.009
5.220	0.063	-0.007	-0.004	5.340	0.377	0.287	-0.029	5.500	0.101	0.062	-0.016
5.220	0.102	0.016	-0.007	5.340	0.416	0.307	-0.025	5.500	0.140	0.083	-0.033
5.220	0.141	0.043	-0.013	5.340	0.455	0.300	-0.011	5.500	0.179	0.115	-0.043
5.220	0.181	0.085	-0.018	5.340	0.495	0.287	-0.010	5.500	0.218	0.154	-0.053
5.220	0.220	0.125	-0.024	5.340	0.534	0.251	-0.011	5.500	0.258	0.194	-0.059
5.220	0.259	0.165	-0.021	5.340	0.573	0.213	-0.004	5.500	0.297	0.230	-0.067
5.220	0.298	0.214	-0.026	5.380	0.022	-0.007	-0.002	5.500	0.336	0.265	-0.060
5.220	0.338	0.259	-0.024	5.380	0.062	0.005	-0.008	5.500	0.376	0.272	-0.042
5.220	0.377	0.292	-0.022	5.380	0.101	0.034	-0.014	5.500	0.415	0.277	-0.033
5.220	0.416	0.309	-0.016	5.380	0.140	0.062	-0.025	5.500	0.454	0.263	-0.021
5.220	0.456	0.321	-0.007	5.380	0.180	0.096	-0.029	5.500	0.494	0.245	-0.020
5.220	0.495	0.315	-0.007	5.380	0.219	0.135	-0.035	5.500	0.533	0.196	-0.020
5.220	0.534	0.277	-0.007	5.380	0.258	0.181	-0.038	5.500	0.572	0.095	-0.005
5.220	0.574	0.235	-0.002	5.380	0.298	0.212	-0.037	5.540	0.022	0.009	-0.003
5.260	0.023	-0.013	-0.003	5.380	0.337	0.233	-0.026	5.540	0.061	0.039	-0.012
5.260	0.062	-0.004	-0.005	5.380	0.376	0.259	-0.027	5.540	0.100	0.070	-0.022
5.260	0.102	0.021	-0.009	5.380	0.416	0.294	-0.028	5.540	0.140	0.089	-0.040





5.540	0.179	0.120	-0.051	5.660	0.493	0.086	-0.025	5.840	0.300	0.215	-0.109
5.540	0.218	0.155	-0.065	5.660	0.532	0.023	-0.011	5.880	0.025	0.152	-0.004
5.540	0.258	0.201	-0.076	5.660	0.572	0.005	-0.004	5.880	0.064	0.193	-0.020
5.540	0.297	0.228	-0.076	5.700	0.021	0.054	-0.005	5.880	0.103	0.239	-0.014
5.540	0.336	0.257	-0.071	5.700	0.060	0.072	-0.018	5.880	0.143	0.280	-0.076
5.540	0.376	0.272	-0.063	5.700	0.100	0.087	-0.026	5.880	0.182	0.315	-0.132
5.540	0.415	0.276	-0.055	5.700	0.139	0.133	-0.055	5.880	0.221	0.333	-0.138
5.540	0.454	0.251	-0.033	5.700	0.178	0.171	-0.076	5.880	0.261	0.240	-0.106
5.540	0.494	0.217	-0.023	5.700	0.218	0.202	-0.095	5.880	0.300	0.014	-0.009
5.540	0.533	0.175	-0.021	5.700	0.257	0.240	-0.108	5.920	0.025	0.168	-0.003
5.540	0.572	0.087	-0.003	5.700	0.296	0.253	-0.121	5.920	0.064	0.255	-0.016
5.580	0.021	0.018	-0.005	5.700	0.335	0.245	-0.120	5.920	0.103	0.268	-0.010
5.580	0.061	0.051	-0.014	5.700	0.375	0.227	-0.114	5.920	0.143	0.315	-0.069
5.580	0.100	0.078	-0.023	5.700	0.414	0.110	-0.068	5.920	0.182	0.341	-0.101
5.580	0.139	0.105	-0.044	5.700	0.453	0.049	-0.045	5.920	0.221	0.346	-0.136
5.580	0.179	0.131	-0.055	5.700	0.493	0.020	-0.017	5.920	0.261	0.233	-0.073
5.580	0.218	0.173	-0.066	5.700	0.532	0.006	-0.006	5.960	0.025	0.203	-0.005
5.580	0.257	0.207	-0.072	5.700	0.571	0.000	0.000	5.960	0.064	0.271	-0.010
5.580	0.297	0.233	-0.083	5.740	0.021	0.088	-0.010	5.960	0.103	0.286	-0.013
5.580	0.336	0.248	-0.077	5.740	0.060	0.115	-0.016	5.960	0.143	0.309	-0.028
5.580	0.375	0.258	-0.080	5.740	0.099	0.096	-0.019	5.960	0.182	0.314	-0.055
5.580	0.415	0.252	-0.070	5.740	0.139	0.066	-0.022	5.960	0.221	0.314	-0.103
5.580	0.454	0.241	-0.042	5.740	0.217	0.294	-0.124	5.960	0.261	0.279	-0.092
5.580	0.493	0.203	-0.031	5.740	0.257	0.286	-0.138	6.000	0.025	0.219	-0.005
5.580	0.533	0.149	-0.023	5.740	0.296	0.252	-0.139	6.000	0.064	0.291	-0.010
5.580	0.572	0.052	-0.003	5.740	0.335	0.211	-0.144	6.000	0.103	0.318	-0.010
5.620	0.021	0.030	-0.006	5.740	0.375	0.028	-0.052	6.000	0.143	0.347	-0.016
5.620	0.061	0.065	-0.017	5.740	0.414	0.003	-0.021	6.000	0.182	0.383	-0.017
5.620	0.100	0.096	-0.027	5.760	0.025	0.067	-0.005	6.000	0.221	0.349	-0.042
5.620	0.139	0.112	-0.047	5.760	0.064	0.094	-0.027	6.000	0.261	0.171	-0.026
5.620	0.179	0.146	-0.062	5.760	0.103	0.132	-0.040	6.040	0.025	0.248	-0.004
5.620	0.218	0.181	-0.079	5.760	0.143	0.174	-0.058	6.040	0.064	0.300	-0.012
5.620	0.257	0.217	-0.084	5.760	0.182	0.222	-0.107	6.040	0.103	0.352	-0.009
5.620	0.297	0.233	-0.091	5.760	0.221	0.261	-0.140	6.040	0.143	0.379	-0.027
5.620	0.336	0.257	-0.089	5.760	0.261	0.278	-0.140	6.040	0.182	0.401	-0.024
5.620	0.375	0.255	-0.090	5.760	0.300	0.263	-0.138	6.040	0.221	0.357	-0.029
5.620	0.415	0.249	-0.080	5.760	0.339	0.201	-0.120	6.040	0.261	0.075	-0.003
5.620	0.454	0.213	-0.046	5.760	0.379	0.009	-0.017	6.080	0.025	0.280	-0.002
5.620	0.493	0.168	-0.033	5.800	0.025	0.094	-0.004	6.080	0.064	0.339	-0.010
5.620	0.533	0.087	-0.018	5.800	0.064	0.146	-0.019	6.080	0.103	0.370	-0.007
5.620	0.572	0.012	-0.002	5.800	0.103	0.198	-0.036	6.080	0.143	0.392	-0.011
5.660	0.021	0.042	-0.006	5.800	0.143	0.232	-0.069	6.080	0.182	0.392	-0.009
5.660	0.060	0.072	-0.020	5.800	0.182	0.243	-0.084	6.080	0.221	0.378	-0.012
5.660	0.100	0.100	-0.027	5.800	0.221	0.275	-0.136	6.080	0.261	0.037	0.000
5.660	0.139	0.125	-0.055	5.800	0.261	0.286	-0.141	6.120	0.025	0.278	-0.001
5.660	0.178	0.163	-0.074	5.800	0.300	0.273	-0.138	6.120	0.064	0.347	-0.006
5.660	0.218	0.188	-0.086	5.840	0.025	0.106	-0.005	6.120	0.103	0.386	-0.005
5.660	0.257	0.224	-0.102	5.840	0.064	0.192	-0.034	6.120	0.143	0.394	-0.009
5.660	0.296	0.250	-0.108	5.840	0.103	0.223	-0.037	6.120	0.182	0.401	-0.005
5.660	0.336	0.256	-0.106	5.840	0.143	0.253	-0.080	6.120	0.221	0.361	-0.007
5.660	0.375	0.240	-0.100	5.840	0.182	0.282	-0.106	6.120	0.261	0.104	0.009
5.660	0.414	0.204	-0.094	5.840	0.221	0.309	-0.136	6.160	0.025	0.278	-0.001
5.660	0.454	0.161	-0.052	5.840	0.261	0.280	-0.127	6.160	0.064	0.361	-0.002





6.160	0.103	0.395	-0.003	6.350	0.339	0.052	-0.007	6.510	0.103	0.424	0.000
6.160	0.143	0.420	-0.007	6.350	0.379	0.041	-0.009	6.510	0.143	0.442	0.000
6.160	0.182	0.434	-0.009	6.350	0.418	0.037	-0.007	6.510	0.182	0.432	0.000
6.160	0.221	0.390	-0.005	6.350	0.457	0.024	-0.006	6.510	0.221	0.348	0.002
6.160	0.261	0.275	-0.022	6.350	0.497	0.019	-0.003	6.510	0.261	0.203	-0.001
6.160	0.300	0.013	-0.004	6.350	0.536	0.012	-0.002	6.510	0.300	0.087	0.000
6.200	0.025	0.302	-0.001	6.350	0.575	0.007	0.002	6.510	0.339	0.058	-0.006
6.200	0.064	0.398	-0.004	6.390	0.025	0.359	0.002	6.510	0.379	0.035	-0.005
6.200	0.103	0.418	-0.003	6.390	0.064	0.402	-0.002	6.510	0.418	0.029	-0.007
6.200	0.143	0.425	-0.003	6.390	0.103	0.423	-0.001	6.510	0.457	0.022	-0.006
6.200	0.182	0.425	-0.006	6.390	0.143	0.427	0.001	6.510	0.497	0.019	-0.004
6.200	0.221	0.392	-0.006	6.390	0.182	0.433	-0.001	6.510	0.536	0.016	-0.003
6.200	0.261	0.295	-0.014	6.390	0.261	0.207	-0.005	6.510	0.575	0.010	-0.001
6.200	0.300	0.107	0.006	6.390	0.300	0.122	-0.009	6.550	0.025	0.351	0.000
6.230	0.300	0.108	-0.001	6.390	0.339	0.043	-0.011	6.550	0.064	0.396	0.000
6.230	0.339	0.047	-0.006	6.390	0.379	0.036	-0.009	6.550	0.103	0.436	0.001
6.240	0.025	0.346	-0.002	6.390	0.418	0.035	-0.008	6.550	0.143	0.436	-0.001
6.240	0.064	0.388	-0.004	6.390	0.457	0.026	-0.006	6.550	0.182	0.425	0.003
6.240	0.103	0.424	-0.004	6.390	0.497	0.020	-0.002	6.550	0.221	0.361	0.002
6.240	0.143	0.445	-0.003	6.390	0.536	0.015	0.000	6.550	0.261	0.207	0.001
6.240	0.182	0.452	-0.004	6.390	0.575	0.007	0.001	6.550	0.300	0.092	0.001
6.240	0.221	0.377	-0.006	6.430	0.025	0.365	0.000	6.550	0.339	0.052	0.000
6.240	0.261	0.211	-0.006	6.430	0.064	0.419	-0.003	6.550	0.379	0.029	-0.004
6.270	0.143	0.444	-0.003	6.430	0.103	0.441	-0.001	6.550	0.418	0.023	-0.005
6.270	0.182	0.443	-0.003	6.430	0.143	0.465	0.000	6.550	0.457	0.021	-0.005
6.270	0.221	0.394	-0.005	6.430	0.182	0.452	-0.002	6.550	0.497	0.018	-0.004
6.270	0.261	0.225	0.002	6.430	0.221	0.382	-0.003	6.550	0.536	0.014	-0.003
6.270	0.300	0.121	0.003	6.430	0.261	0.183	-0.007	6.550	0.575	0.009	-0.001
6.270	0.339	0.037	0.006	6.430	0.300	0.098	-0.006	6.590	0.025	0.357	0.000
6.270	0.379	0.036	-0.009	6.430	0.339	0.051	-0.008	6.590	0.064	0.391	0.002
6.280	0.025	0.351	-0.001	6.430	0.379	0.037	-0.010	6.590	0.103	0.436	0.000
6.280	0.064	0.397	-0.005	6.430	0.418	0.031	-0.008	6.590	0.143	0.444	0.001
6.280	0.103	0.418	-0.003	6.430	0.457	0.024	-0.006	6.590	0.182	0.446	0.002
6.310	0.025	0.341	0.000	6.430	0.497	0.019	-0.003	6.590	0.221	0.310	0.000
6.310	0.064	0.403	-0.003	6.430	0.536	0.014	0.001	6.590	0.261	0.223	0.001
6.310	0.103	0.427	-0.002	6.430	0.575	0.010	0.001	6.590	0.300	0.102	0.003
6.310	0.143	0.450	-0.002	6.470	0.025	0.366	0.000	6.590	0.339	0.058	-0.001
6.310	0.182	0.443	-0.003	6.470	0.064	0.398	0.000	6.590	0.379	0.035	-0.005
6.310	0.221	0.385	-0.002	6.470	0.103	0.430	0.001	6.590	0.418	0.025	-0.005
6.310	0.261	0.229	0.002	6.470	0.143	0.454	0.001	6.590	0.457	0.018	-0.007
6.310	0.300	0.102	-0.003	6.470	0.182	0.442	-0.001	6.590	0.497	0.016	-0.004
6.310	0.339	0.042	-0.006	6.470	0.221	0.379	0.000	6.590	0.536	0.014	-0.001
6.310	0.379	0.029	-0.011	6.470	0.261	0.164	-0.003	6.590	0.575	0.009	-0.001
6.310	0.418	0.026	-0.008	6.470	0.300	0.077	-0.006	6.630	0.025	0.339	0.001
6.310	0.457	0.017	-0.005	6.470	0.339	0.055	-0.008	6.630	0.064	0.382	0.000
6.350	0.025	0.350	0.001	6.470	0.379	0.038	-0.009	6.630	0.103	0.412	0.000
6.350	0.064	0.407	-0.004	6.470	0.418	0.030	-0.008	6.630	0.143	0.431	0.002
6.350	0.103	0.422	-0.004	6.470	0.457	0.024	-0.005	6.630	0.182	0.426	0.002
6.350	0.143	0.449	-0.002	6.470	0.497	0.020	-0.003	6.630	0.221	0.356	0.003
6.350	0.182	0.426	-0.002	6.470	0.536	0.017	-0.001	6.630	0.261	0.255	0.002
6.350	0.221	0.346	-0.001	6.470	0.575	0.012	-0.001	6.630	0.300	0.115	0.001
6.350	0.261	0.225	0.000	6.510	0.025	0.357	0.001	6.630	0.339	0.054	-0.005
6.350	0.300	0.131	-0.006	6.510	0.064	0.386	0.000	6.630	0.379	0.033	-0.006



6.630	0.418	0.026	-0.007	6.780	0.379	0.030	-0.003	6.900	0.457	0.012	0.003
6.630	0.457	0.019	-0.007	6.780	0.418	0.019	-0.001	6.900	0.497	0.009	0.004
6.630	0.497	0.017	-0.006	6.780	0.457	0.015	0.000	6.900	0.536	0.011	0.000
6.630	0.536	0.013	-0.002	6.780	0.497	0.014	-0.002	6.900	0.575	0.008	0.000
6.630	0.575	0.009	-0.001	6.780	0.536	0.012	-0.002	6.940	0.025	0.310	0.002
6.670	0.025	0.342	0.003	6.780	0.575	0.008	0.000	6.940	0.064	0.344	0.003
6.670	0.064	0.390	0.001	6.790	0.025	0.327	0.001	6.940	0.103	0.384	0.002
6.670	0.103	0.414	0.000	6.790	0.064	0.371	0.001	6.940	0.143	0.415	0.003
6.670	0.143	0.433	0.000	6.790	0.103	0.425	0.001	6.940	0.182	0.417	0.006
6.670	0.182	0.415	0.000	6.790	0.143	0.417	0.004	6.940	0.221	0.400	0.007
6.670	0.221	0.363	0.000	6.790	0.182	0.405	0.004	6.940	0.261	0.324	0.009
6.670	0.261	0.251	0.000	6.790	0.221	0.387	0.006	6.940	0.300	0.206	0.008
6.670	0.300	0.117	-0.001	6.820	0.103	0.413	0.003	6.940	0.339	0.095	0.012
6.670	0.339	0.049	-0.007	6.820	0.143	0.417	0.002	6.940	0.379	0.036	0.008
6.670	0.379	0.030	-0.006	6.820	0.182	0.414	0.006	6.940	0.418	0.023	0.005
6.670	0.418	0.024	-0.009	6.820	0.221	0.396	0.006	6.940	0.457	0.013	0.003
6.670	0.457	0.016	-0.004	6.820	0.261	0.296	0.005	6.940	0.497	0.013	0.003
6.670	0.497	0.012	-0.004	6.820	0.300	0.170	0.009	6.940	0.536	0.011	0.002
6.670	0.536	0.012	-0.003	6.820	0.339	0.076	0.002	6.940	0.575	0.008	0.001
6.670	0.575	0.009	-0.001	6.820	0.379	0.026	0.000				
6.700	0.575	0.007	-0.001	6.820	0.418	0.019	0.002				
6.710	0.025	0.321	0.003	6.820	0.457	0.015	0.003				
6.710	0.064	0.374	0.003	6.820	0.497	0.010	-0.001				
6.710	0.103	0.427	0.001	6.820	0.536	0.009	-0.002				
6.710	0.143	0.374	-0.004	6.820	0.575	0.006	0.000				
6.710	0.182	0.432	0.001	6.830	0.025	0.331	0.003				
6.710	0.221	0.365	0.001	6.830	0.064	0.362	0.004				
6.710	0.261	0.226	0.000	6.860	0.025	0.296	0.001				
6.710	0.300	0.125	-0.003	6.860	0.064	0.350	0.003				
6.710	0.339	0.053	-0.004	6.860	0.103	0.395	0.003				
6.710	0.379	0.026	-0.007	6.860	0.143	0.403	0.004				
6.710	0.418	0.017	-0.009	6.860	0.182	0.417	0.019				
6.710	0.457	0.012	-0.002	6.860	0.221	0.393	0.004				
6.710	0.497	0.012	-0.003	6.860	0.261	0.261	0.006				
6.710	0.536	0.010	-0.003	6.860	0.300	0.196	0.014				
6.740	0.418	0.017	-0.004	6.860	0.339	0.088	0.003				
6.740	0.457	0.013	-0.001	6.860	0.379	0.025	0.002				
6.740	0.497	0.015	-0.002	6.860	0.418	0.016	0.003				
6.740	0.536	0.012	-0.003	6.860	0.457	0.013	0.004				
6.740	0.575	0.007	-0.001	6.860	0.497	0.009	0.003				
6.750	0.025	0.325	0.001	6.860	0.536	0.008	-0.002				
6.750	0.064	0.371	0.001	6.860	0.575	0.005	0.000				
6.750	0.103	0.408	0.001	6.900	0.025	0.340	0.002				
6.750	0.143	0.422	0.002	6.900	0.064	0.369	0.004				
6.750	0.182	0.422	0.002	6.900	0.103	0.398	0.003				
6.750	0.221	0.383	0.002	6.900	0.143	0.369	0.012				
6.750	0.261	0.270	0.007	6.900	0.182	0.399	0.022				
6.750	0.300	0.124	0.004	6.900	0.221	0.380	0.005				
6.750	0.339	0.054	-0.003	6.900	0.261	0.302	0.015				
6.750	0.379	0.025	-0.006	6.900	0.300	0.201	0.015				
6.780	0.261	0.281	0.009	6.900	0.339	0.079	0.006				
6.780	0.300	0.143	0.006	6.900	0.379	0.030	0.006				
6.780	0.339	0.073	0.002	6.900	0.418	0.018	0.005				





# Vegetation Density 2.5%

X	Y	V <sub>x</sub>	V <sub>y</sub>	X	Y	V <sub>x</sub>	V <sub>y</sub>	X	Y	V <sub>x</sub>	V <sub>y</sub>
0.440	0.036	0.049	-0.002	0.570	0.311	0.185	-0.012	0.690	0.546	0.222	-0.005
0.440	0.076	0.069	-0.004	0.570	0.351	0.229	-0.011	0.690	0.586	0.138	-0.002
0.440	0.115	0.078	-0.006	0.570	0.390	0.269	-0.011	0.720	0.032	0.063	-0.002
0.450	0.155	0.081	-0.011	0.570	0.430	0.299	-0.006	0.720	0.071	0.078	-0.006
0.450	0.194	0.088	-0.011	0.570	0.469	0.289	-0.005	0.720	0.111	0.089	-0.009
0.450	0.234	0.107	-0.012	0.570	0.509	0.273	-0.004	0.720	0.150	0.090	-0.014
0.450	0.273	0.131	-0.011	0.570	0.548	0.240	-0.004	0.730	0.190	0.100	-0.014
0.450	0.313	0.166	-0.010	0.570	0.588	0.154	-0.002	0.730	0.229	0.129	-0.014
0.450	0.353	0.193	-0.011	0.600	0.034	0.057	-0.002	0.730	0.269	0.162	-0.018
0.450	0.392	0.267	-0.007	0.600	0.073	0.071	-0.004	0.730	0.308	0.198	-0.019
0.450	0.432	0.288	-0.001	0.600	0.113	0.086	-0.007	0.730	0.348	0.237	-0.018
0.450	0.471	0.238	0.004	0.610	0.152	0.093	-0.010	0.730	0.388	0.279	-0.016
0.450	0.511	0.226	0.016	0.610	0.192	0.099	-0.011	0.730	0.427	0.286	-0.014
0.450	0.550	0.221	0.016	0.610	0.231	0.118	-0.012	0.730	0.467	0.277	-0.010
0.480	0.035	0.053	-0.002	0.610	0.271	0.145	-0.014	0.730	0.506	0.267	-0.007
0.480	0.075	0.069	-0.004	0.610	0.310	0.179	-0.013	0.730	0.546	0.207	-0.007
0.490	0.115	0.084	-0.006	0.610	0.350	0.235	-0.014	0.730	0.585	0.131	-0.002
0.490	0.154	0.085	-0.011	0.610	0.390	0.277	-0.013	0.760	0.031	0.064	-0.002
0.490	0.194	0.088	-0.012	0.610	0.429	0.302	-0.009	0.760	0.070	0.079	-0.006
0.490	0.233	0.112	-0.012	0.610	0.469	0.296	-0.007	0.760	0.110	0.091	-0.010
0.490	0.273	0.139	-0.010	0.610	0.508	0.277	-0.005	0.760	0.150	0.096	-0.015
0.490	0.312	0.173	-0.010	0.610	0.548	0.232	-0.004	0.760	0.189	0.106	-0.016
0.490	0.352	0.217	-0.010	0.610	0.587	0.155	-0.002	0.760	0.229	0.131	-0.017
0.490	0.391	0.262	-0.009	0.640	0.033	0.058	-0.002	0.770	0.268	0.165	-0.022
0.490	0.431	0.280	-0.006	0.640	0.072	0.073	-0.004	0.770	0.308	0.199	-0.023
0.490	0.471	0.265	-0.006	0.640	0.112	0.086	-0.008	0.770	0.347	0.242	-0.022
0.490	0.510	0.254	-0.003	0.640	0.152	0.093	-0.011	0.770	0.387	0.281	-0.017
0.490	0.550	0.229	0.010	0.640	0.191	0.099	-0.012	0.770	0.427	0.293	-0.013
0.490	0.589	0.154	0.000	0.650	0.231	0.120	-0.014	0.770	0.466	0.277	-0.009
0.520	0.035	0.058	-0.001	0.650	0.270	0.151	-0.016	0.770	0.506	0.261	-0.008
0.520	0.074	0.074	-0.005	0.650	0.310	0.184	-0.014	0.770	0.545	0.209	-0.008
0.520	0.114	0.082	-0.006	0.650	0.349	0.235	-0.013	0.770	0.585	0.132	-0.003
0.520	0.153	0.088	-0.009	0.650	0.389	0.272	-0.013	0.800	0.030	0.068	-0.002
0.530	0.193	0.097	-0.011	0.650	0.428	0.295	-0.009	0.800	0.070	0.081	-0.006
0.530	0.233	0.116	-0.012	0.650	0.468	0.288	-0.007	0.800	0.109	0.094	-0.011
0.530	0.272	0.141	-0.012	0.650	0.508	0.269	-0.005	0.800	0.149	0.103	-0.016
0.530	0.312	0.183	-0.011	0.650	0.547	0.221	-0.004	0.800	0.189	0.110	-0.019
0.530	0.351	0.222	-0.009	0.650	0.587	0.144	-0.001	0.810	0.228	0.136	-0.021
0.530	0.391	0.268	-0.009	0.680	0.032	0.063	-0.002	0.810	0.268	0.173	-0.026
0.530	0.430	0.296	-0.005	0.680	0.072	0.075	-0.005	0.810	0.307	0.205	-0.028
0.530	0.470	0.273	-0.003	0.680	0.111	0.084	-0.009	0.810	0.347	0.242	-0.026
0.530	0.509	0.273	-0.001	0.680	0.151	0.096	-0.013	0.810	0.386	0.272	-0.020
0.530	0.549	0.238	0.000	0.690	0.190	0.102	-0.014	0.810	0.426	0.283	-0.015
0.530	0.589	0.163	-0.001	0.690	0.230	0.123	-0.014	0.810	0.465	0.274	-0.011
0.560	0.034	0.053	-0.001	0.690	0.270	0.152	-0.016	0.810	0.505	0.254	-0.008
0.560	0.074	0.071	-0.005	0.690	0.309	0.187	-0.015	0.810	0.545	0.196	-0.009
0.560	0.113	0.084	-0.006	0.690	0.349	0.232	-0.015	0.810	0.584	0.126	-0.003
0.560	0.153	0.091	-0.009	0.690	0.388	0.278	-0.013	0.840	0.030	0.076	-0.003
0.570	0.192	0.097	-0.011	0.690	0.428	0.289	-0.013	0.840	0.069	0.089	-0.006
0.570	0.232	0.116	-0.013	0.690	0.467	0.285	-0.009	0.840	0.109	0.101	-0.011
0.570	0.272	0.144	-0.013	0.690	0.507	0.275	-0.005	0.840	0.148	0.108	-0.017





0.840	0.188	0.124	-0.023	1.000	0.146	0.143	-0.022	1.240	0.261	0.214	-0.088
0.850	0.227	0.148	-0.027	1.000	0.185	0.161	-0.043	1.280	0.023	0.179	-0.006
0.850	0.267	0.177	-0.033	1.000	0.225	0.191	-0.058	1.280	0.062	0.195	-0.011
0.850	0.307	0.215	-0.042	1.000	0.264	0.222	-0.081	1.280	0.102	0.229	-0.013
0.850	0.346	0.248	-0.032	1.000	0.304	0.239	-0.106	1.280	0.141	0.244	-0.022
0.850	0.386	0.272	-0.034	1.000	0.344	0.230	-0.119	1.280	0.181	0.273	-0.042
0.850	0.425	0.273	-0.018	1.010	0.383	0.111	-0.049	1.280	0.220	0.253	-0.057
0.850	0.465	0.260	-0.013	1.040	0.026	0.120	-0.006	1.280	0.260	0.204	-0.043
0.850	0.504	0.238	-0.009	1.040	0.066	0.130	-0.011	1.320	0.022	0.188	-0.007
0.850	0.544	0.180	-0.010	1.040	0.106	0.142	-0.013	1.320	0.061	0.204	-0.010
0.850	0.583	0.117	-0.003	1.040	0.145	0.160	-0.023	1.320	0.101	0.246	-0.012
0.880	0.029	0.080	-0.003	1.040	0.185	0.180	-0.049	1.320	0.141	0.266	-0.019
0.880	0.069	0.094	-0.006	1.040	0.224	0.198	-0.067	1.320	0.180	0.296	-0.034
0.880	0.108	0.105	-0.011	1.040	0.264	0.241	-0.104	1.320	0.220	0.276	-0.032
0.880	0.148	0.113	-0.017	1.040	0.303	0.235	-0.123	1.320	0.259	0.214	-0.027
0.880	0.187	0.129	-0.024	1.040	0.343	0.119	-0.059	1.320	0.299	0.058	-0.005
0.880	0.227	0.157	-0.031	1.080	0.026	0.127	-0.005	1.360	0.021	0.199	-0.006
0.880	0.266	0.190	-0.045	1.080	0.065	0.139	-0.010	1.360	0.061	0.212	-0.009
0.890	0.306	0.225	-0.057	1.080	0.105	0.154	-0.013	1.360	0.100	0.257	-0.011
0.890	0.345	0.255	-0.056	1.080	0.144	0.170	-0.025	1.360	0.140	0.278	-0.015
0.890	0.385	0.259	-0.051	1.080	0.184	0.196	-0.048	1.360	0.179	0.300	-0.023
0.890	0.425	0.244	-0.031	1.080	0.224	0.218	-0.078	1.360	0.219	0.290	-0.025
0.890	0.464	0.241	-0.015	1.080	0.263	0.232	-0.116	1.360	0.259	0.191	-0.015
0.890	0.504	0.226	-0.011	1.080	0.303	0.171	-0.089	1.360	0.298	0.096	-0.010
0.890	0.543	0.167	-0.010	1.120	0.025	0.141	-0.007	1.400	0.021	0.207	-0.006
0.890	0.583	0.080	-0.003	1.120	0.065	0.149	-0.012	1.400	0.060	0.224	-0.008
0.920	0.028	0.088	-0.004	1.120	0.104	0.162	-0.014	1.400	0.100	0.261	-0.010
0.920	0.068	0.103	-0.007	1.120	0.144	0.181	-0.027	1.400	0.139	0.291	-0.015
0.920	0.107	0.115	-0.013	1.120	0.183	0.204	-0.062	1.400	0.179	0.316	-0.021
0.920	0.147	0.122	-0.018	1.120	0.223	0.239	-0.103	1.400	0.218	0.300	-0.019
0.920	0.187	0.132	-0.024	1.120	0.262	0.223	-0.123	1.400	0.258	0.197	-0.017
0.920	0.226	0.157	-0.031	1.120	0.302	0.074	-0.042	1.400	0.298	0.130	-0.014
0.930	0.266	0.195	-0.052	1.160	0.024	0.152	-0.007	1.400	0.337	0.044	-0.008
0.930	0.305	0.218	-0.064	1.160	0.064	0.163	-0.012	1.440	0.020	0.211	-0.005
0.930	0.345	0.254	-0.069	1.160	0.104	0.180	-0.013	1.440	0.060	0.233	-0.007
0.930	0.384	0.260	-0.054	1.160	0.143	0.202	-0.028	1.440	0.099	0.272	-0.009
0.930	0.424	0.220	-0.039	1.160	0.183	0.209	-0.063	1.440	0.139	0.302	-0.012
0.930	0.463	0.163	-0.016	1.160	0.222	0.221	-0.100	1.440	0.178	0.328	-0.015
0.930	0.503	0.081	-0.008	1.160	0.262	0.222	-0.122	1.440	0.218	0.300	-0.013
0.960	0.028	0.095	-0.004	1.160	0.301	0.068	-0.043	1.440	0.257	0.194	-0.015
0.960	0.067	0.111	-0.008	1.200	0.024	0.161	-0.007	1.440	0.297	0.133	-0.013
0.960	0.107	0.123	-0.014	1.200	0.063	0.170	-0.010	1.440	0.336	0.085	-0.011
0.960	0.146	0.125	-0.021	1.200	0.103	0.196	-0.012	1.480	0.019	0.222	-0.004
0.960	0.186	0.141	-0.028	1.200	0.142	0.220	-0.026	1.480	0.059	0.245	-0.007
0.960	0.225	0.160	-0.039	1.200	0.182	0.225	-0.056	1.480	0.098	0.279	-0.008
0.960	0.265	0.206	-0.062	1.200	0.222	0.219	-0.095	1.480	0.138	0.319	-0.010
0.960	0.305	0.229	-0.080	1.200	0.261	0.208	-0.114	1.480	0.178	0.336	-0.013
0.970	0.344	0.249	-0.108	1.240	0.023	0.169	-0.007	1.480	0.217	0.294	-0.013
0.970	0.384	0.205	-0.085	1.240	0.063	0.183	-0.011	1.480	0.257	0.196	-0.010
0.970	0.423	0.078	-0.028	1.240	0.102	0.208	-0.013	1.480	0.296	0.140	-0.010
1.000	0.027	0.110	-0.005	1.240	0.142	0.238	-0.022	1.480	0.336	0.106	-0.011
1.000	0.067	0.125	-0.009	1.240	0.181	0.249	-0.046	1.480	0.375	0.072	-0.008
1.000	0.106	0.135	-0.014	1.240	0.221	0.213	-0.078	1.520	0.019	0.233	-0.005



1.520	0.058	0.254	-0.007	1.640	0.491	0.070	-0.003	1.800	0.212	0.293	-0.006
1.520	0.098	0.287	-0.007	1.640	0.531	0.070	-0.002	1.800	0.251	0.178	-0.002
1.520	0.137	0.322	-0.009	1.640	0.571	0.065	-0.001	1.800	0.291	0.134	-0.002
1.520	0.177	0.344	-0.011	1.680	0.016	0.243	-0.003	1.800	0.331	0.111	-0.002
1.520	0.216	0.305	-0.011	1.680	0.056	0.265	-0.005	1.800	0.370	0.092	-0.003
1.520	0.256	0.197	-0.006	1.680	0.095	0.303	-0.006	1.800	0.410	0.078	-0.002
1.520	0.296	0.141	-0.006	1.680	0.135	0.326	-0.007	1.800	0.449	0.069	-0.001
1.520	0.335	0.106	-0.007	1.680	0.174	0.344	-0.007	1.800	0.489	0.066	-0.002
1.520	0.375	0.089	-0.008	1.680	0.214	0.309	-0.006	1.800	0.528	0.066	-0.002
1.520	0.414	0.076	-0.008	1.680	0.253	0.201	-0.003	1.800	0.568	0.058	-0.001
1.520	0.454	0.046	-0.006	1.680	0.293	0.144	-0.002	1.840	0.013	0.244	-0.001
1.560	0.018	0.238	-0.004	1.680	0.333	0.117	-0.002	1.840	0.053	0.260	-0.003
1.560	0.058	0.256	-0.006	1.680	0.372	0.092	-0.001	1.840	0.093	0.301	-0.005
1.560	0.097	0.291	-0.007	1.680	0.412	0.080	-0.002	1.840	0.132	0.307	-0.005
1.560	0.137	0.323	-0.008	1.680	0.451	0.073	-0.002	1.840	0.172	0.313	-0.009
1.560	0.176	0.344	-0.009	1.680	0.491	0.070	-0.002	1.840	0.211	0.259	-0.005
1.560	0.216	0.307	-0.008	1.680	0.530	0.068	-0.002	1.840	0.251	0.155	-0.003
1.560	0.255	0.197	-0.004	1.680	0.570	0.060	-0.001	1.840	0.290	0.136	-0.003
1.560	0.295	0.137	-0.004	1.720	0.015	0.243	-0.003	1.840	0.330	0.114	-0.003
1.560	0.334	0.110	-0.005	1.720	0.055	0.268	-0.005	1.840	0.370	0.090	-0.003
1.560	0.374	0.091	-0.006	1.720	0.095	0.306	-0.006	1.840	0.409	0.076	-0.002
1.560	0.414	0.079	-0.005	1.720	0.134	0.330	-0.006	1.840	0.449	0.066	-0.002
1.560	0.453	0.073	-0.005	1.720	0.174	0.344	-0.007	1.840	0.488	0.066	-0.002
1.570	0.493	0.069	-0.004	1.720	0.213	0.300	-0.006	1.840	0.528	0.064	-0.002
1.570	0.532	0.058	-0.002	1.720	0.253	0.194	-0.002	1.840	0.567	0.054	-0.001
1.570	0.572	0.043	-0.001	1.720	0.292	0.145	-0.001	1.880	0.013	0.240	-0.002
1.600	0.017	0.243	-0.003	1.720	0.332	0.116	-0.001	1.880	0.052	0.271	-0.003
1.600	0.057	0.263	-0.005	1.720	0.371	0.097	-0.002	1.880	0.092	0.306	-0.005
1.600	0.096	0.295	-0.006	1.720	0.411	0.082	-0.002	1.880	0.132	0.322	-0.005
1.600	0.136	0.328	-0.007	1.720	0.451	0.070	-0.001	1.880	0.171	0.328	-0.006
1.600	0.176	0.348	-0.008	1.720	0.490	0.066	-0.002	1.880	0.211	0.245	-0.006
1.600	0.215	0.301	-0.007	1.720	0.530	0.067	-0.002	1.880	0.250	0.168	-0.005
1.600	0.255	0.193	-0.002	1.730	0.569	0.061	-0.001	1.880	0.290	0.132	-0.004
1.600	0.294	0.139	-0.002	1.760	0.015	0.247	-0.002	1.880	0.329	0.104	-0.004
1.600	0.334	0.112	-0.004	1.760	0.054	0.265	-0.004	1.880	0.369	0.086	-0.003
1.600	0.373	0.091	-0.003	1.760	0.094	0.306	-0.006	1.880	0.408	0.070	-0.003
1.600	0.413	0.081	-0.004	1.760	0.133	0.336	-0.006	1.880	0.448	0.064	-0.003
1.600	0.453	0.074	-0.004	1.760	0.173	0.347	-0.006	1.880	0.488	0.064	-0.002
1.600	0.492	0.073	-0.003	1.760	0.213	0.302	-0.006	1.880	0.527	0.064	-0.002
1.610	0.532	0.071	-0.002	1.760	0.252	0.199	-0.004	1.880	0.567	0.055	-0.001
1.610	0.571	0.066	-0.001	1.760	0.292	0.144	-0.001	1.910	0.012	0.227	-0.002
1.640	0.017	0.241	-0.004	1.760	0.331	0.116	-0.001	1.920	0.052	0.255	-0.002
1.640	0.056	0.266	-0.004	1.760	0.371	0.094	-0.002	1.920	0.091	0.309	-0.005
1.640	0.096	0.304	-0.005	1.760	0.410	0.081	-0.002	1.920	0.131	0.326	-0.006
1.640	0.135	0.332	-0.007	1.760	0.450	0.072	-0.002	1.920	0.170	0.343	-0.007
1.640	0.175	0.352	-0.008	1.760	0.489	0.068	-0.002	1.920	0.210	0.275	-0.009
1.640	0.215	0.315	-0.006	1.760	0.529	0.067	-0.002	1.920	0.250	0.146	-0.002
1.640	0.254	0.200	-0.003	1.760	0.569	0.058	-0.001	1.920	0.289	0.080	-0.004
1.640	0.294	0.141	-0.002	1.800	0.014	0.248	-0.002	1.920	0.329	0.060	-0.004
1.640	0.333	0.115	-0.002	1.800	0.054	0.266	-0.003	1.920	0.368	0.050	-0.004
1.640	0.373	0.095	-0.002	1.800	0.093	0.302	-0.005	1.920	0.408	0.047	-0.002
1.640	0.412	0.080	-0.002	1.800	0.133	0.332	-0.005	1.920	0.447	0.056	-0.001
1.640	0.452	0.071	-0.003	1.800	0.172	0.345	-0.007	1.920	0.487	0.056	-0.003





1.920	0.526	0.057	-0.002	2.080	0.261	0.189	0.000	2.230	0.063	0.282	-0.001
1.920	0.566	0.045	-0.001	2.080	0.300	0.137	0.002	2.230	0.103	0.315	-0.002
1.960	0.025	0.244	-0.002	2.080	0.339	0.109	0.000	2.230	0.142	0.336	-0.002
1.960	0.065	0.281	-0.002	2.080	0.418	0.079	0.000	2.230	0.181	0.329	-0.002
1.960	0.104	0.312	-0.002	2.080	0.457	0.068	0.000	2.230	0.221	0.271	-0.003
1.960	0.143	0.328	-0.003	2.080	0.497	0.064	0.000	2.230	0.260	0.193	-0.001
1.960	0.183	0.331	-0.004	2.080	0.536	0.063	0.000	2.230	0.299	0.150	0.000
1.960	0.222	0.268	-0.002	2.080	0.575	0.051	0.000	2.230	0.338	0.117	0.002
1.960	0.261	0.190	-0.002	2.110	0.025	0.239	-0.001	2.230	0.378	0.095	0.001
1.960	0.301	0.137	0.000	2.110	0.064	0.279	-0.002	2.230	0.417	0.081	0.001
1.960	0.340	0.112	0.000	2.110	0.103	0.320	-0.002	2.230	0.456	0.070	0.000
1.960	0.379	0.092	0.000	2.110	0.143	0.335	-0.003	2.230	0.496	0.067	0.000
1.960	0.419	0.080	-0.001	2.110	0.182	0.327	-0.004	2.230	0.535	0.063	0.000
1.960	0.458	0.071	0.000	2.110	0.221	0.280	-0.002	2.230	0.574	0.052	0.000
1.960	0.497	0.067	0.000	2.110	0.260	0.192	0.000	2.270	0.024	0.206	0.001
1.960	0.537	0.064	-0.001	2.110	0.300	0.146	0.001	2.270	0.063	0.265	-0.001
1.960	0.576	0.049	0.000	2.110	0.339	0.109	0.001	2.270	0.102	0.325	-0.002
2.000	0.025	0.239	-0.001	2.110	0.378	0.092	0.001	2.270	0.142	0.337	-0.002
2.000	0.065	0.282	-0.002	2.120	0.418	0.080	0.000	2.270	0.181	0.323	-0.002
2.000	0.104	0.314	-0.002	2.120	0.457	0.071	0.000	2.270	0.220	0.275	-0.003
2.000	0.143	0.329	-0.002	2.120	0.496	0.068	0.000	2.270	0.260	0.199	-0.001
2.000	0.182	0.331	-0.003	2.120	0.536	0.064	-0.001	2.270	0.299	0.147	0.001
2.000	0.222	0.271	-0.003	2.120	0.575	0.052	0.000	2.270	0.338	0.117	0.002
2.000	0.261	0.182	-0.001	2.150	0.024	0.241	-0.001	2.270	0.378	0.099	0.001
2.000	0.300	0.138	-0.001	2.150	0.064	0.280	-0.002	2.270	0.417	0.085	0.001
2.000	0.340	0.112	-0.001	2.150	0.103	0.323	-0.002	2.270	0.456	0.074	0.000
2.000	0.379	0.095	0.000	2.150	0.142	0.337	-0.003	2.270	0.496	0.068	0.000
2.000	0.418	0.080	0.000	2.150	0.182	0.324	-0.003	2.270	0.535	0.063	0.000
2.000	0.458	0.069	0.000	2.150	0.221	0.274	-0.002	2.270	0.574	0.052	0.000
2.000	0.497	0.065	-0.001	2.150	0.260	0.201	-0.001	2.310	0.023	0.215	0.000
2.000	0.536	0.062	-0.001	2.150	0.300	0.145	0.000	2.310	0.063	0.271	-0.001
2.000	0.576	0.051	0.000	2.150	0.339	0.113	0.001	2.310	0.102	0.310	-0.001
2.040	0.025	0.237	-0.001	2.150	0.378	0.093	0.001	2.310	0.141	0.331	-0.002
2.040	0.064	0.274	-0.002	2.150	0.418	0.078	0.001	2.310	0.181	0.319	-0.001
2.040	0.104	0.311	-0.003	2.150	0.457	0.069	0.000	2.310	0.220	0.274	-0.001
2.040	0.143	0.330	-0.002	2.150	0.496	0.066	0.000	2.310	0.259	0.211	-0.002
2.040	0.182	0.330	-0.002	2.150	0.535	0.063	0.000	2.310	0.299	0.144	0.000
2.040	0.222	0.262	-0.001	2.150	0.575	0.050	0.000	2.310	0.338	0.115	0.001
2.040	0.261	0.189	-0.001	2.190	0.024	0.241	0.000	2.310	0.377	0.095	0.001
2.040	0.300	0.135	-0.001	2.190	0.063	0.282	-0.002	2.310	0.417	0.081	0.001
2.040	0.340	0.111	0.000	2.190	0.103	0.323	-0.002	2.310	0.456	0.071	0.001
2.040	0.379	0.093	0.000	2.190	0.142	0.340	-0.002	2.310	0.495	0.066	0.000
2.040	0.418	0.080	0.001	2.190	0.181	0.330	-0.002	2.310	0.535	0.063	-0.001
2.040	0.457	0.070	0.000	2.190	0.221	0.272	-0.001	2.310	0.574	0.051	0.000
2.040	0.497	0.067	0.000	2.190	0.260	0.194	0.000	2.350	0.023	0.247	0.000
2.040	0.536	0.063	0.000	2.190	0.299	0.149	0.000	2.350	0.063	0.279	0.000
2.040	0.575	0.050	0.000	2.190	0.339	0.112	0.001	2.350	0.102	0.318	-0.001
2.070	0.025	0.241	-0.001	2.190	0.378	0.093	0.001	2.350	0.141	0.331	-0.001
2.070	0.064	0.279	-0.002	2.190	0.417	0.079	0.001	2.350	0.181	0.316	-0.002
2.070	0.103	0.315	-0.003	2.190	0.457	0.071	0.000	2.350	0.220	0.275	-0.001
2.080	0.143	0.340	-0.003	2.190	0.496	0.069	0.000	2.350	0.259	0.209	-0.001
2.080	0.182	0.334	-0.005	2.190	0.535	0.064	0.000	2.350	0.299	0.148	0.001
2.080	0.221	0.271	-0.002	2.230	0.024	0.230	0.000	2.350	0.338	0.121	0.001





2.350	0.377	0.097	0.001	2.510	0.140	0.333	-0.002	2.630	0.454	0.073	0.001
2.350	0.416	0.084	0.001	2.510	0.180	0.320	-0.001	2.630	0.494	0.067	0.000
2.350	0.456	0.073	0.000	2.510	0.219	0.278	0.000	2.630	0.533	0.061	0.000
2.350	0.495	0.067	0.000	2.510	0.258	0.220	0.001	2.630	0.572	0.049	0.000
2.350	0.534	0.062	0.000	2.510	0.298	0.155	0.002	2.670	0.022	0.234	0.002
2.350	0.574	0.051	0.000	2.510	0.337	0.114	0.002	2.670	0.061	0.259	0.002
2.390	0.023	0.245	0.000	2.510	0.376	0.096	0.001	2.670	0.100	0.310	0.000
2.390	0.062	0.275	-0.001	2.510	0.416	0.082	0.001	2.670	0.140	0.331	0.000
2.390	0.102	0.322	-0.002	2.510	0.455	0.070	0.000	2.670	0.179	0.311	0.001
2.390	0.141	0.336	-0.002	2.510	0.494	0.064	0.000	2.670	0.218	0.272	0.002
2.390	0.180	0.313	-0.003	2.510	0.534	0.062	0.000	2.670	0.257	0.225	0.004
2.390	0.220	0.268	-0.001	2.510	0.573	0.054	0.000	2.670	0.297	0.166	0.005
2.390	0.259	0.213	-0.001	2.550	0.022	0.240	0.001	2.670	0.336	0.120	0.002
2.390	0.298	0.157	0.001	2.550	0.062	0.269	0.002	2.670	0.375	0.096	0.004
2.390	0.338	0.120	0.001	2.550	0.101	0.316	0.000	2.670	0.415	0.081	0.003
2.390	0.377	0.094	0.002	2.550	0.140	0.333	-0.001	2.670	0.454	0.068	0.002
2.390	0.416	0.078	0.001	2.550	0.179	0.320	-0.001	2.670	0.493	0.063	0.001
2.390	0.456	0.070	0.000	2.550	0.219	0.270	0.001	2.670	0.533	0.059	0.000
2.390	0.495	0.067	0.000	2.550	0.258	0.214	0.000	2.670	0.572	0.049	0.000
2.390	0.534	0.063	0.000	2.550	0.297	0.161	0.003	2.700	0.021	0.233	0.002
2.390	0.574	0.053	0.000	2.550	0.337	0.116	0.002	2.700	0.061	0.256	0.003
2.430	0.023	0.247	0.000	2.550	0.376	0.096	0.002	2.700	0.100	0.299	0.000
2.430	0.062	0.274	0.000	2.550	0.415	0.082	0.001	2.700	0.139	0.327	0.000
2.430	0.101	0.315	-0.001	2.550	0.455	0.072	0.001	2.700	0.179	0.308	0.001
2.430	0.141	0.329	-0.001	2.550	0.494	0.067	0.001	2.710	0.218	0.269	0.002
2.430	0.180	0.318	-0.002	2.550	0.533	0.062	0.000	2.710	0.257	0.223	0.006
2.430	0.219	0.269	0.000	2.550	0.573	0.053	0.000	2.710	0.297	0.178	0.005
2.430	0.259	0.208	0.000	2.590	0.022	0.236	0.001	2.710	0.336	0.127	0.005
2.430	0.298	0.155	0.001	2.590	0.061	0.264	0.001	2.710	0.375	0.106	0.005
2.430	0.337	0.122	0.001	2.590	0.101	0.316	0.000	2.710	0.415	0.087	0.003
2.430	0.377	0.099	0.002	2.590	0.140	0.325	0.000	2.710	0.454	0.074	0.002
2.430	0.416	0.083	0.000	2.590	0.179	0.316	-0.001	2.710	0.493	0.066	0.001
2.430	0.455	0.072	0.000	2.590	0.219	0.277	0.000	2.710	0.533	0.059	0.000
2.430	0.495	0.066	0.000	2.590	0.258	0.220	0.000	2.710	0.572	0.049	0.000
2.430	0.534	0.063	0.000	2.590	0.297	0.161	0.002	2.740	0.021	0.232	0.002
2.430	0.573	0.053	0.000	2.590	0.337	0.111	0.001	2.740	0.060	0.251	0.003
2.470	0.023	0.243	0.000	2.590	0.376	0.094	0.001	2.740	0.100	0.302	0.000
2.470	0.062	0.273	0.001	2.590	0.415	0.079	0.003	2.740	0.139	0.324	0.002
2.470	0.101	0.320	-0.001	2.590	0.455	0.068	0.001	2.740	0.178	0.316	0.002
2.470	0.141	0.339	-0.001	2.590	0.494	0.064	0.000	2.740	0.218	0.270	0.003
2.470	0.180	0.317	-0.001	2.590	0.533	0.059	0.000	2.740	0.257	0.223	0.006
2.470	0.219	0.278	-0.001	2.590	0.572	0.048	0.000	2.740	0.296	0.182	0.005
2.470	0.259	0.213	0.002	2.630	0.022	0.239	0.001	2.740	0.336	0.135	0.005
2.470	0.298	0.157	0.001	2.630	0.061	0.263	0.002	2.740	0.375	0.102	0.005
2.470	0.337	0.118	0.001	2.630	0.100	0.310	-0.001	2.740	0.414	0.087	0.004
2.470	0.377	0.097	0.002	2.630	0.140	0.333	0.000	2.740	0.454	0.073	0.003
2.470	0.416	0.082	0.001	2.630	0.179	0.319	0.000	2.740	0.493	0.065	0.001
2.470	0.455	0.073	0.000	2.630	0.218	0.273	0.002	2.750	0.532	0.060	0.001
2.470	0.534	0.064	0.000	2.630	0.258	0.223	0.002	2.750	0.572	0.050	0.000
2.470	0.573	0.057	0.000	2.630	0.297	0.167	0.004	2.780	0.021	0.223	0.001
2.510	0.022	0.245	0.001	2.630	0.336	0.124	0.002	2.780	0.060	0.247	0.003
2.510	0.062	0.271	0.001	2.630	0.376	0.097	0.004	2.780	0.100	0.300	0.000
2.510	0.101	0.316	-0.001	2.630	0.415	0.080	0.003	2.780	0.139	0.318	0.001



2.780	0.178	0.316	0.003	2.900	0.492	0.066	0.001	3.060	0.216	0.283	0.009
2.780	0.218	0.272	0.003	2.900	0.531	0.060	0.001	3.060	0.255	0.230	0.012
2.780	0.257	0.228	0.006	2.900	0.571	0.049	0.000	3.060	0.295	0.186	0.009
2.780	0.296	0.173	0.006	2.940	0.020	0.206	0.003	3.060	0.334	0.114	0.005
2.780	0.335	0.138	0.006	2.940	0.059	0.230	0.005	3.060	0.373	0.092	0.005
2.780	0.375	0.104	0.005	2.940	0.099	0.268	0.003	3.060	0.413	0.096	0.008
2.780	0.414	0.084	0.004	2.940	0.138	0.300	0.004	3.060	0.452	0.079	0.005
2.780	0.453	0.073	0.003	2.940	0.177	0.301	0.006	3.060	0.491	0.073	0.004
2.780	0.493	0.064	0.002	2.940	0.217	0.275	0.006	3.060	0.531	0.064	0.002
2.780	0.532	0.058	0.001	2.940	0.256	0.236	0.007	3.060	0.570	0.057	0.001
2.780	0.571	0.051	0.000	2.940	0.295	0.183	0.010	3.100	0.019	0.163	0.003
2.820	0.021	0.199	-0.001	2.940	0.335	0.130	0.007	3.100	0.059	0.203	0.007
2.820	0.060	0.245	0.002	2.940	0.374	0.104	0.006	3.100	0.098	0.245	0.006
2.820	0.099	0.294	0.001	2.940	0.413	0.095	0.006	3.100	0.137	0.277	0.007
2.820	0.139	0.319	0.001	2.940	0.453	0.079	0.003	3.100	0.177	0.282	0.009
2.820	0.178	0.316	0.003	2.940	0.492	0.064	0.002	3.100	0.216	0.267	0.012
2.820	0.217	0.274	0.003	2.940	0.531	0.058	0.001	3.100	0.255	0.229	0.021
2.820	0.257	0.236	0.005	2.940	0.571	0.051	0.000	3.100	0.294	0.193	0.017
2.820	0.296	0.183	0.007	2.980	0.020	0.195	0.002	3.100	0.334	0.126	0.012
2.820	0.335	0.135	0.007	2.980	0.059	0.223	0.006	3.100	0.373	0.095	0.009
2.820	0.375	0.108	0.005	2.980	0.099	0.265	0.004	3.100	0.412	0.091	0.009
2.820	0.414	0.086	0.004	2.980	0.138	0.292	0.004	3.100	0.452	0.083	0.006
2.820	0.453	0.074	0.003	2.980	0.177	0.297	0.008	3.100	0.491	0.073	0.004
2.820	0.493	0.066	0.002	2.980	0.216	0.268	0.008	3.100	0.530	0.064	0.002
2.820	0.532	0.059	0.001	2.980	0.256	0.231	0.007	3.100	0.570	0.054	0.001
2.820	0.571	0.047	0.000	2.980	0.295	0.147	0.005	3.140	0.019	0.152	0.003
2.860	0.021	0.195	-0.002	2.980	0.334	0.103	0.004	3.140	0.058	0.189	0.009
2.860	0.060	0.239	0.002	2.980	0.374	0.098	0.005	3.140	0.098	0.231	0.008
2.860	0.099	0.291	0.001	2.980	0.413	0.091	0.005	3.140	0.137	0.256	0.009
2.860	0.138	0.309	0.002	2.980	0.452	0.077	0.004	3.140	0.176	0.273	0.013
2.860	0.178	0.301	0.002	2.980	0.492	0.066	0.003	3.140	0.216	0.250	0.019
2.860	0.217	0.277	0.004	2.980	0.531	0.060	0.001	3.140	0.255	0.222	0.028
2.860	0.256	0.236	0.006	2.980	0.570	0.053	0.000	3.140	0.294	0.189	0.022
2.860	0.296	0.176	0.005	3.020	0.020	0.192	0.002	3.140	0.334	0.134	0.016
2.860	0.335	0.133	0.006	3.020	0.059	0.219	0.005	3.140	0.373	0.106	0.011
2.860	0.374	0.105	0.004	3.020	0.098	0.261	0.004	3.140	0.412	0.094	0.009
2.860	0.414	0.090	0.005	3.020	0.138	0.286	0.005	3.140	0.452	0.085	0.007
2.860	0.453	0.073	0.003	3.020	0.177	0.295	0.006	3.140	0.491	0.073	0.005
2.860	0.492	0.065	0.002	3.020	0.216	0.266	0.010	3.140	0.530	0.066	0.004
2.860	0.532	0.057	0.001	3.020	0.256	0.226	0.011	3.140	0.569	0.057	0.001
2.860	0.571	0.049	0.000	3.020	0.295	0.153	0.006	3.180	0.019	0.103	0.003
2.900	0.020	0.198	0.003	3.020	0.334	0.094	0.004	3.180	0.058	0.164	0.011
2.900	0.060	0.233	0.004	3.020	0.374	0.079	0.003	3.180	0.097	0.195	0.015
2.900	0.099	0.276	0.002	3.020	0.413	0.093	0.005	3.180	0.137	0.232	0.017
2.900	0.138	0.305	0.003	3.020	0.452	0.080	0.005	3.180	0.176	0.269	0.039
2.900	0.178	0.304	0.003	3.020	0.491	0.069	0.003	3.180	0.215	0.203	0.018
2.900	0.217	0.279	0.004	3.020	0.531	0.063	0.002	3.180	0.255	0.189	0.032
2.900	0.256	0.231	0.007	3.020	0.570	0.053	0.001	3.180	0.294	0.130	0.044
2.900	0.296	0.179	0.011	3.060	0.019	0.179	0.002	3.180	0.333	0.081	0.025
2.900	0.335	0.129	0.008	3.060	0.059	0.210	0.006	3.180	0.373	0.069	0.023
2.900	0.374	0.101	0.007	3.060	0.098	0.255	0.005	3.180	0.412	0.067	0.016
2.900	0.413	0.090	0.006	3.060	0.137	0.289	0.005	3.180	0.451	0.060	0.008
2.900	0.453	0.072	0.003	3.060	0.177	0.297	0.007	3.180	0.491	0.051	0.007





3.180	0.530	0.042	0.010	3.330	0.262	0.273	0.069	3.530	0.497	0.178	0.011
3.180	0.569	0.027	0.001	3.330	0.301	0.250	0.064	3.530	0.536	0.153	0.003
3.210	0.027	0.152	0.001	3.330	0.341	0.215	0.042	3.530	0.576	0.138	0.001
3.210	0.066	0.190	0.003	3.330	0.380	0.179	0.032	3.570	0.339	0.266	0.141
3.210	0.105	0.253	0.001	3.330	0.419	0.149	0.024	3.570	0.378	0.268	0.141
3.210	0.145	0.275	0.003	3.330	0.459	0.123	0.010	3.570	0.418	0.252	0.079
3.210	0.184	0.287	0.012	3.330	0.498	0.108	0.006	3.570	0.457	0.223	0.032
3.210	0.223	0.280	0.017	3.330	0.538	0.101	0.003	3.570	0.496	0.193	0.009
3.210	0.263	0.252	0.017	3.330	0.577	0.090	0.000	3.570	0.536	0.165	0.003
3.210	0.302	0.214	0.013	3.370	0.144	0.222	0.027	3.570	0.575	0.150	0.001
3.210	0.341	0.188	0.016	3.370	0.183	0.188	0.050	3.610	0.339	0.236	0.105
3.210	0.381	0.150	0.008	3.370	0.222	0.265	0.085	3.610	0.378	0.285	0.153
3.210	0.420	0.116	0.006	3.370	0.262	0.278	0.098	3.610	0.417	0.270	0.081
3.210	0.460	0.100	0.004	3.370	0.301	0.258	0.090	3.610	0.457	0.236	0.035
3.210	0.499	0.091	0.002	3.370	0.340	0.229	0.076	3.610	0.496	0.211	0.015
3.210	0.538	0.084	0.001	3.370	0.380	0.197	0.053	3.610	0.536	0.181	0.005
3.210	0.578	0.074	0.000	3.370	0.419	0.168	0.029	3.610	0.575	0.163	0.001
3.250	0.026	0.139	0.001	3.370	0.459	0.132	0.012	3.650	0.338	0.218	0.067
3.250	0.066	0.176	0.003	3.370	0.498	0.116	0.006	3.650	0.378	0.301	0.135
3.250	0.105	0.241	0.002	3.370	0.537	0.106	0.003	3.650	0.417	0.288	0.077
3.250	0.144	0.269	0.004	3.370	0.577	0.096	0.000	3.650	0.457	0.248	0.022
3.250	0.184	0.280	0.018	3.410	0.222	0.145	0.053	3.650	0.496	0.226	0.013
3.250	0.223	0.277	0.022	3.410	0.261	0.251	0.120	3.650	0.535	0.198	0.005
3.250	0.262	0.250	0.022	3.410	0.301	0.266	0.119	3.650	0.575	0.174	0.001
3.250	0.302	0.218	0.028	3.410	0.340	0.247	0.107	3.690	0.299	0.064	0.007
3.250	0.341	0.192	0.022	3.410	0.379	0.220	0.071	3.690	0.338	0.177	0.015
3.250	0.381	0.157	0.015	3.410	0.419	0.182	0.044	3.690	0.378	0.301	0.077
3.250	0.420	0.114	0.005	3.410	0.458	0.145	0.018	3.690	0.417	0.306	0.055
3.250	0.459	0.102	0.006	3.410	0.498	0.125	0.008	3.690	0.456	0.268	0.020
3.250	0.499	0.096	0.003	3.410	0.537	0.116	0.004	3.690	0.496	0.235	0.014
3.250	0.538	0.088	0.001	3.410	0.576	0.104	0.001	3.690	0.535	0.211	0.005
3.250	0.577	0.078	0.000	3.450	0.261	0.191	0.074	3.690	0.574	0.187	0.001
3.290	0.026	0.099	0.001	3.450	0.300	0.261	0.127	3.730	0.299	0.079	0.005
3.290	0.065	0.156	0.003	3.450	0.340	0.257	0.124	3.730	0.338	0.172	0.009
3.290	0.105	0.227	0.002	3.450	0.379	0.232	0.091	3.730	0.377	0.291	0.039
3.290	0.144	0.255	0.005	3.450	0.419	0.201	0.043	3.730	0.417	0.318	0.039
3.290	0.183	0.275	0.024	3.450	0.458	0.164	0.022	3.730	0.456	0.289	0.016
3.290	0.223	0.278	0.035	3.450	0.497	0.141	0.010	3.730	0.495	0.255	0.007
3.290	0.262	0.257	0.038	3.450	0.537	0.127	0.005	3.730	0.535	0.223	0.007
3.290	0.302	0.234	0.041	3.450	0.576	0.116	0.002	3.730	0.574	0.195	0.001
3.290	0.341	0.203	0.030	3.490	0.300	0.245	0.122	3.770	0.298	0.100	0.004
3.290	0.380	0.169	0.022	3.490	0.340	0.263	0.135	3.770	0.338	0.163	0.005
3.290	0.420	0.130	0.010	3.490	0.379	0.241	0.104	3.770	0.377	0.269	0.015
3.290	0.459	0.111	0.005	3.490	0.418	0.215	0.053	3.770	0.416	0.320	0.029
3.290	0.498	0.103	0.004	3.490	0.458	0.181	0.021	3.770	0.456	0.303	0.015
3.290	0.538	0.094	0.002	3.490	0.497	0.160	0.010	3.770	0.495	0.266	0.006
3.290	0.577	0.084	0.000	3.490	0.536	0.139	0.004	3.770	0.534	0.236	0.004
3.330	0.026	0.050	-0.002	3.490	0.576	0.127	0.001	3.770	0.574	0.204	0.000
3.330	0.065	0.092	-0.002	3.530	0.300	0.224	0.129	3.810	0.259	0.063	0.004
3.330	0.104	0.091	0.000	3.530	0.339	0.271	0.139	3.810	0.298	0.115	0.004
3.330	0.144	0.206	0.005	3.530	0.379	0.261	0.116	3.810	0.337	0.164	0.004
3.330	0.183	0.255	0.031	3.530	0.418	0.237	0.058	3.810	0.377	0.261	0.009
3.330	0.223	0.277	0.061	3.530	0.457	0.204	0.026	3.810	0.416	0.323	0.015





3.810	0.455	0.314	0.012	4.000	0.100	0.073	0.001	4.120	0.453	0.338	0.000
3.810	0.495	0.281	0.004	4.000	0.139	0.072	0.001	4.120	0.493	0.315	0.000
3.810	0.534	0.244	0.004	4.000	0.178	0.074	0.001	4.120	0.532	0.279	-0.001
3.810	0.574	0.218	0.000	4.000	0.218	0.086	0.000	4.120	0.571	0.245	-0.002
3.850	0.258	0.087	0.002	4.000	0.257	0.101	0.000	4.160	0.020	0.056	0.000
3.850	0.298	0.121	0.003	4.000	0.297	0.121	0.001	4.160	0.059	0.066	0.000
3.850	0.337	0.167	0.002	4.000	0.336	0.156	0.000	4.160	0.138	0.073	0.000
3.850	0.376	0.265	0.005	4.000	0.375	0.247	0.000	4.160	0.177	0.075	0.000
3.850	0.416	0.338	0.010	4.000	0.415	0.323	0.002	4.160	0.217	0.084	-0.001
3.850	0.455	0.323	0.006	4.000	0.454	0.334	0.002	4.160	0.256	0.100	-0.002
3.850	0.495	0.291	0.005	4.000	0.493	0.310	0.001	4.160	0.295	0.118	-0.001
3.850	0.534	0.258	0.003	4.000	0.533	0.276	0.000	4.160	0.335	0.149	-0.002
3.850	0.573	0.227	-0.001	4.000	0.572	0.240	-0.001	4.160	0.374	0.228	-0.003
3.890	0.219	0.076	0.003	4.040	0.021	0.052	0.000	4.160	0.414	0.320	-0.001
3.890	0.258	0.100	0.001	4.040	0.060	0.066	0.001	4.160	0.453	0.338	0.000
3.890	0.297	0.122	0.002	4.040	0.099	0.071	0.000	4.160	0.492	0.314	0.000
3.890	0.337	0.161	0.001	4.040	0.139	0.072	0.001	4.160	0.532	0.283	-0.001
3.890	0.376	0.263	0.002	4.040	0.178	0.074	0.001	4.160	0.571	0.250	-0.002
3.890	0.416	0.329	0.006	4.040	0.257	0.100	0.000	4.200	0.020	0.056	0.000
3.890	0.455	0.332	0.008	4.040	0.296	0.120	0.000	4.200	0.059	0.065	0.000
3.890	0.494	0.302	0.005	4.040	0.336	0.155	0.000	4.200	0.098	0.071	0.000
3.890	0.534	0.265	0.003	4.040	0.375	0.234	-0.002	4.200	0.138	0.073	0.000
3.890	0.573	0.233	-0.001	4.040	0.414	0.331	0.000	4.200	0.177	0.076	-0.001
3.920	0.100	0.044	0.002	4.040	0.454	0.340	0.001	4.200	0.216	0.081	-0.002
3.920	0.140	0.054	0.002	4.040	0.493	0.313	0.000	4.200	0.256	0.081	-0.004
3.920	0.179	0.071	0.002	4.040	0.533	0.279	-0.001	4.200	0.295	0.092	-0.004
3.920	0.218	0.086	0.001	4.040	0.572	0.239	-0.002	4.200	0.335	0.142	-0.002
3.920	0.258	0.100	0.001	4.080	0.020	0.051	0.000	4.200	0.374	0.224	-0.003
3.920	0.297	0.123	0.001	4.080	0.060	0.066	0.001	4.200	0.413	0.314	-0.002
3.920	0.337	0.161	0.000	4.080	0.099	0.071	0.000	4.200	0.453	0.334	0.000
3.920	0.376	0.255	0.002	4.080	0.139	0.072	0.000	4.200	0.492	0.313	0.000
3.930	0.415	0.337	0.005	4.080	0.178	0.074	0.000	4.200	0.531	0.290	0.000
3.930	0.455	0.338	0.006	4.080	0.217	0.082	0.000	4.200	0.571	0.253	-0.002
3.930	0.494	0.309	0.003	4.080	0.257	0.099	-0.001	4.240	0.019	0.058	0.000
3.930	0.533	0.270	0.002	4.080	0.296	0.119	-0.001	4.240	0.059	0.066	0.000
3.930	0.573	0.240	-0.001	4.080	0.335	0.152	-0.001	4.240	0.098	0.072	0.000
3.960	0.021	0.046	0.000	4.080	0.375	0.237	-0.002	4.240	0.137	0.074	0.000
3.960	0.061	0.068	0.001	4.080	0.414	0.330	0.000	4.240	0.177	0.077	-0.001
3.960	0.100	0.075	0.001	4.080	0.454	0.337	0.000	4.240	0.216	0.084	-0.002
3.960	0.139	0.073	0.001	4.080	0.493	0.313	0.000	4.240	0.256	0.083	-0.004
3.960	0.179	0.075	0.001	4.080	0.532	0.286	0.002	4.240	0.295	0.092	-0.003
3.960	0.218	0.085	0.001	4.080	0.572	0.240	-0.002	4.240	0.334	0.141	-0.002
3.960	0.257	0.100	0.001	4.120	0.020	0.047	0.000	4.240	0.374	0.219	-0.003
3.960	0.297	0.122	0.001	4.120	0.060	0.065	0.000	4.240	0.413	0.311	-0.002
3.960	0.336	0.158	0.000	4.120	0.099	0.070	0.000	4.240	0.452	0.335	0.004
3.960	0.376	0.249	0.001	4.120	0.138	0.072	0.000	4.240	0.492	0.320	0.004
3.960	0.415	0.330	0.003	4.120	0.178	0.074	0.000	4.240	0.531	0.296	0.000
3.960	0.454	0.340	0.004	4.120	0.217	0.083	-0.001	4.240	0.571	0.260	-0.002
3.960	0.494	0.309	0.002	4.120	0.256	0.100	-0.001	4.280	0.019	0.057	0.001
3.960	0.533	0.274	0.001	4.120	0.296	0.120	-0.001	4.280	0.058	0.066	0.000
3.960	0.572	0.242	-0.001	4.120	0.335	0.152	-0.002	4.280	0.098	0.071	0.000
4.000	0.021	0.061	0.000	4.120	0.374	0.230	-0.002	4.280	0.137	0.073	0.000
4.000	0.060	0.069	0.001	4.120	0.414	0.323	-0.001	4.280	0.177	0.078	-0.001





4.280	0.216	0.089	-0.002	4.400	0.530	0.293	-0.001	4.550	0.341	0.201	-0.008
4.280	0.255	0.104	-0.002	4.400	0.569	0.250	-0.002	4.550	0.380	0.249	-0.006
4.280	0.295	0.123	-0.001	4.440	0.057	0.057	0.003	4.550	0.420	0.302	-0.002
4.280	0.334	0.161	-0.002	4.440	0.097	0.063	0.002	4.550	0.459	0.315	-0.004
4.280	0.373	0.250	-0.002	4.440	0.136	0.065	0.001	4.550	0.498	0.306	-0.003
4.280	0.413	0.322	-0.002	4.440	0.175	0.070	0.002	4.550	0.538	0.280	-0.001
4.280	0.452	0.345	0.000	4.440	0.215	0.079	0.003	4.550	0.577	0.233	0.001
4.280	0.492	0.339	0.002	4.440	0.254	0.090	0.001	4.590	0.026	0.060	0.000
4.280	0.531	0.303	0.000	4.440	0.294	0.112	0.002	4.590	0.066	0.070	-0.001
4.280	0.570	0.262	-0.002	4.440	0.333	0.138	0.006	4.590	0.105	0.077	-0.003
4.320	0.019	0.057	0.001	4.440	0.412	0.298	0.000	4.590	0.144	0.079	-0.004
4.320	0.058	0.065	0.000	4.440	0.451	0.340	-0.002	4.590	0.184	0.083	-0.005
4.320	0.098	0.070	0.000	4.440	0.490	0.356	0.001	4.590	0.223	0.096	-0.005
4.320	0.137	0.073	-0.001	4.440	0.530	0.328	0.000	4.590	0.262	0.122	-0.005
4.320	0.176	0.078	-0.001	4.440	0.569	0.279	-0.003	4.590	0.302	0.160	-0.008
4.320	0.216	0.090	-0.002	4.470	0.027	0.057	-0.003	4.590	0.341	0.200	-0.008
4.320	0.255	0.108	-0.001	4.470	0.066	0.067	-0.003	4.590	0.380	0.252	-0.003
4.320	0.294	0.131	-0.001	4.470	0.106	0.074	-0.002	4.590	0.420	0.301	-0.003
4.320	0.334	0.172	-0.002	4.470	0.145	0.075	-0.003	4.590	0.459	0.319	-0.004
4.320	0.373	0.252	-0.002	4.470	0.184	0.080	-0.005	4.590	0.498	0.310	-0.001
4.320	0.412	0.316	-0.002	4.470	0.224	0.090	-0.006	4.590	0.538	0.283	0.000
4.320	0.452	0.344	-0.001	4.470	0.263	0.113	-0.005	4.590	0.577	0.237	-0.003
4.320	0.491	0.334	-0.001	4.470	0.302	0.145	-0.005	4.630	0.026	0.059	-0.001
4.320	0.531	0.300	-0.001	4.470	0.342	0.191	-0.005	4.630	0.065	0.071	-0.001
4.320	0.570	0.261	-0.002	4.470	0.381	0.247	-0.003	4.630	0.105	0.078	-0.002
4.360	0.018	0.056	0.002	4.470	0.420	0.301	-0.002	4.630	0.144	0.080	-0.003
4.360	0.058	0.063	0.000	4.470	0.460	0.315	-0.001	4.630	0.183	0.084	-0.005
4.360	0.097	0.068	0.000	4.470	0.499	0.302	-0.001	4.630	0.223	0.096	-0.005
4.360	0.137	0.070	0.000	4.470	0.538	0.277	0.001	4.630	0.262	0.127	-0.005
4.360	0.176	0.075	-0.001	4.470	0.577	0.233	-0.002	4.630	0.301	0.164	-0.007
4.360	0.215	0.090	-0.001	4.510	0.027	0.059	-0.003	4.630	0.341	0.207	-0.008
4.360	0.255	0.108	-0.001	4.510	0.066	0.070	-0.002	4.630	0.380	0.255	-0.001
4.360	0.294	0.131	-0.001	4.510	0.105	0.075	-0.002	4.630	0.419	0.297	-0.004
4.360	0.333	0.170	-0.001	4.510	0.145	0.076	-0.004	4.630	0.459	0.318	-0.003
4.360	0.373	0.244	-0.001	4.510	0.184	0.079	-0.007	4.630	0.498	0.311	-0.001
4.360	0.412	0.318	-0.002	4.510	0.223	0.090	-0.006	4.630	0.537	0.284	0.001
4.360	0.452	0.339	-0.001	4.510	0.263	0.112	-0.005	4.630	0.577	0.240	-0.004
4.360	0.491	0.330	-0.001	4.510	0.302	0.149	-0.006	4.670	0.026	0.059	-0.002
4.360	0.530	0.293	-0.002	4.510	0.341	0.197	-0.007	4.670	0.065	0.071	-0.001
4.360	0.570	0.254	-0.002	4.510	0.381	0.248	-0.004	4.670	0.105	0.077	-0.001
4.400	0.018	0.055	0.001	4.510	0.420	0.304	-0.003	4.670	0.144	0.080	-0.002
4.400	0.058	0.061	0.001	4.510	0.459	0.316	-0.004	4.670	0.183	0.085	-0.005
4.400	0.097	0.066	0.000	4.510	0.499	0.306	-0.002	4.670	0.223	0.096	-0.005
4.400	0.136	0.070	0.000	4.510	0.538	0.281	0.000	4.670	0.262	0.126	-0.005
4.400	0.176	0.076	0.000	4.510	0.577	0.234	-0.003	4.670	0.301	0.162	-0.006
4.400	0.215	0.086	-0.002	4.550	0.027	0.058	0.000	4.670	0.341	0.214	-0.006
4.400	0.254	0.106	-0.001	4.550	0.066	0.069	-0.002	4.670	0.380	0.255	-0.001
4.400	0.294	0.127	0.000	4.550	0.105	0.075	-0.003	4.670	0.419	0.299	-0.001
4.400	0.333	0.165	-0.001	4.550	0.145	0.077	-0.004	4.670	0.459	0.320	-0.001
4.400	0.373	0.247	-0.001	4.550	0.184	0.081	-0.004	4.670	0.498	0.308	0.000
4.400	0.412	0.313	-0.002	4.550	0.223	0.091	-0.006	4.670	0.537	0.287	0.000
4.400	0.451	0.335	-0.002	4.550	0.262	0.116	-0.004	4.670	0.577	0.246	-0.004
4.400	0.491	0.321	-0.001	4.550	0.302	0.154	-0.006	4.710	0.026	0.059	0.000





4.710	0.065	0.070	-0.001	4.830	0.340	0.223	-0.001	4.980	0.103	0.078	-0.001
4.710	0.104	0.078	-0.001	4.830	0.379	0.263	-0.002	4.980	0.142	0.083	-0.001
4.710	0.144	0.084	-0.002	4.830	0.418	0.304	-0.002	4.980	0.182	0.093	-0.003
4.710	0.183	0.088	-0.005	4.830	0.458	0.325	-0.001	4.980	0.221	0.116	0.000
4.710	0.222	0.102	-0.003	4.830	0.497	0.325	0.001	4.980	0.260	0.148	-0.003
4.710	0.262	0.128	-0.003	4.830	0.536	0.292	-0.001	4.980	0.300	0.189	-0.004
4.710	0.301	0.163	-0.003	4.860	0.418	0.302	-0.003	4.980	0.339	0.230	-0.003
4.710	0.340	0.215	-0.001	4.860	0.458	0.323	-0.002	4.980	0.378	0.268	-0.006
4.710	0.380	0.256	-0.002	4.860	0.497	0.322	0.003	4.980	0.418	0.300	-0.003
4.710	0.419	0.302	-0.001	4.860	0.536	0.293	0.001	4.980	0.457	0.316	0.001
4.710	0.458	0.323	0.001	4.860	0.576	0.251	-0.001	4.980	0.496	0.318	0.000
4.710	0.498	0.311	0.000	4.870	0.025	0.065	-0.002	4.980	0.536	0.288	0.000
4.710	0.537	0.286	-0.002	4.870	0.064	0.073	0.000	4.980	0.575	0.245	-0.005
4.710	0.576	0.248	-0.003	4.870	0.104	0.080	-0.001	5.020	0.024	0.068	-0.001
4.750	0.026	0.062	-0.001	4.870	0.143	0.082	-0.002	5.020	0.064	0.074	-0.002
4.750	0.065	0.071	-0.001	4.870	0.182	0.090	-0.002	5.020	0.103	0.079	0.000
4.750	0.104	0.078	-0.001	4.870	0.222	0.109	-0.001	5.020	0.142	0.084	-0.001
4.750	0.144	0.080	-0.003	4.870	0.261	0.136	0.000	5.020	0.181	0.096	0.001
4.750	0.183	0.088	-0.006	4.870	0.300	0.174	-0.001	5.020	0.221	0.119	-0.003
4.750	0.222	0.105	-0.003	4.870	0.340	0.227	0.000	5.020	0.260	0.149	-0.003
4.750	0.262	0.128	-0.004	4.870	0.379	0.266	0.001	5.020	0.299	0.193	-0.005
4.750	0.301	0.167	-0.003	4.900	0.261	0.137	0.001	5.020	0.339	0.235	-0.003
4.750	0.340	0.219	-0.001	4.900	0.300	0.182	0.000	5.020	0.378	0.274	-0.004
4.750	0.379	0.262	0.000	4.900	0.339	0.227	-0.001	5.020	0.417	0.302	-0.003
4.750	0.419	0.302	-0.001	4.900	0.379	0.265	-0.001	5.020	0.457	0.315	-0.002
4.750	0.458	0.326	0.001	4.900	0.418	0.301	-0.002	5.020	0.496	0.315	-0.001
4.750	0.497	0.323	0.001	4.900	0.457	0.321	-0.001	5.020	0.535	0.285	0.000
4.750	0.537	0.292	-0.001	4.900	0.497	0.319	-0.001	5.020	0.575	0.243	-0.005
4.750	0.576	0.252	-0.001	4.900	0.536	0.290	-0.002	5.060	0.024	0.067	0.001
4.790	0.025	0.064	-0.001	4.900	0.575	0.249	-0.001	5.060	0.063	0.074	0.001
4.790	0.065	0.073	-0.002	4.910	0.025	0.065	0.000	5.060	0.103	0.082	-0.001
4.790	0.104	0.079	-0.002	4.910	0.064	0.073	0.000	5.060	0.142	0.087	-0.001
4.790	0.143	0.082	-0.001	4.910	0.103	0.080	0.001	5.060	0.181	0.101	-0.001
4.790	0.183	0.089	0.001	4.910	0.143	0.083	0.000	5.060	0.221	0.123	-0.004
4.790	0.222	0.105	-0.001	4.910	0.182	0.090	-0.001	5.060	0.260	0.153	-0.003
4.790	0.261	0.131	-0.003	4.910	0.221	0.111	0.001	5.060	0.299	0.195	-0.005
4.790	0.301	0.175	-0.003	4.940	0.064	0.073	0.000	5.060	0.339	0.234	-0.005
4.790	0.340	0.220	-0.003	4.940	0.103	0.080	0.000	5.060	0.378	0.275	-0.004
4.790	0.379	0.265	0.001	4.940	0.143	0.084	0.000	5.060	0.417	0.300	-0.007
4.790	0.419	0.307	0.000	4.940	0.182	0.091	-0.001	5.060	0.457	0.315	-0.003
4.790	0.458	0.329	-0.001	4.940	0.221	0.113	0.000	5.060	0.496	0.310	-0.004
4.790	0.497	0.323	0.000	4.940	0.261	0.144	0.000	5.060	0.535	0.285	-0.002
4.790	0.537	0.293	-0.001	4.940	0.300	0.186	-0.003	5.060	0.575	0.244	-0.002
4.790	0.576	0.255	-0.001	4.940	0.339	0.229	-0.004	5.100	0.024	0.065	-0.001
4.820	0.576	0.254	-0.001	4.940	0.379	0.268	-0.004	5.100	0.063	0.073	-0.001
4.830	0.025	0.065	-0.001	4.940	0.418	0.299	-0.003	5.100	0.102	0.083	-0.002
4.830	0.064	0.073	-0.002	4.940	0.457	0.319	0.000	5.100	0.142	0.090	-0.001
4.830	0.104	0.079	-0.002	4.940	0.496	0.314	0.002	5.100	0.181	0.104	0.000
4.830	0.143	0.079	-0.002	4.940	0.536	0.286	0.001	5.100	0.220	0.127	-0.004
4.830	0.182	0.089	0.001	4.940	0.575	0.249	-0.001	5.100	0.260	0.156	-0.004
4.830	0.222	0.109	0.000	4.950	0.025	0.065	0.000	5.100	0.299	0.199	-0.008
4.830	0.261	0.132	-0.003	4.980	0.024	0.068	0.000	5.100	0.338	0.240	-0.007
4.830	0.300	0.175	-0.002	4.980	0.064	0.074	0.001	5.100	0.378	0.277	-0.005





5.100	0.417	0.300	-0.008	5.260	0.141	0.094	-0.003	5.380	0.455	0.300	-0.007
5.100	0.456	0.313	-0.005	5.260	0.180	0.108	-0.003	5.380	0.494	0.291	-0.005
5.100	0.496	0.312	-0.002	5.260	0.220	0.142	-0.005	5.380	0.534	0.260	-0.008
5.100	0.535	0.286	-0.001	5.260	0.259	0.171	-0.006	5.380	0.573	0.219	-0.007
5.100	0.574	0.248	-0.003	5.260	0.298	0.206	-0.006	5.420	0.022	0.051	-0.001
5.140	0.024	0.063	-0.001	5.260	0.338	0.238	-0.006	5.420	0.062	0.066	-0.001
5.140	0.063	0.073	-0.001	5.260	0.377	0.275	-0.009	5.420	0.101	0.082	-0.002
5.140	0.102	0.082	-0.002	5.260	0.416	0.299	-0.009	5.420	0.140	0.092	-0.003
5.140	0.142	0.091	-0.001	5.260	0.456	0.307	-0.008	5.420	0.180	0.120	-0.005
5.140	0.181	0.106	-0.001	5.260	0.495	0.301	-0.004	5.420	0.219	0.148	-0.010
5.140	0.220	0.127	-0.005	5.260	0.534	0.278	-0.005	5.420	0.258	0.182	-0.011
5.140	0.260	0.161	-0.007	5.260	0.574	0.237	-0.003	5.420	0.298	0.210	-0.012
5.140	0.299	0.202	-0.007	5.300	0.023	0.058	-0.001	5.420	0.337	0.245	-0.014
5.140	0.338	0.240	-0.007	5.300	0.062	0.073	-0.002	5.420	0.376	0.276	-0.012
5.140	0.378	0.275	-0.005	5.300	0.101	0.086	-0.001	5.420	0.416	0.292	-0.007
5.140	0.417	0.299	-0.006	5.300	0.141	0.097	-0.002	5.420	0.455	0.296	-0.005
5.140	0.456	0.311	-0.005	5.300	0.180	0.112	-0.002	5.420	0.494	0.284	-0.006
5.140	0.496	0.308	-0.004	5.300	0.219	0.145	-0.005	5.420	0.533	0.256	-0.008
5.140	0.535	0.282	-0.004	5.300	0.259	0.174	-0.007	5.420	0.573	0.213	-0.007
5.140	0.574	0.248	-0.003	5.300	0.298	0.209	-0.006	5.460	0.022	0.051	0.000
5.180	0.023	0.063	-0.002	5.300	0.337	0.240	-0.007	5.460	0.061	0.067	-0.001
5.180	0.063	0.073	-0.003	5.300	0.377	0.275	-0.009	5.460	0.101	0.086	-0.003
5.180	0.102	0.083	-0.003	5.300	0.416	0.295	-0.008	5.460	0.140	0.101	-0.004
5.180	0.141	0.091	-0.001	5.300	0.455	0.305	-0.008	5.460	0.179	0.125	-0.010
5.180	0.181	0.107	-0.002	5.300	0.495	0.301	-0.005	5.460	0.219	0.150	-0.009
5.180	0.220	0.130	-0.004	5.300	0.534	0.274	-0.007	5.460	0.258	0.181	-0.008
5.180	0.259	0.164	-0.007	5.300	0.573	0.234	-0.006	5.460	0.297	0.211	-0.012
5.180	0.299	0.205	-0.006	5.340	0.023	0.054	0.000	5.460	0.337	0.244	-0.013
5.180	0.338	0.240	-0.004	5.340	0.062	0.072	-0.002	5.460	0.376	0.271	-0.015
5.180	0.377	0.277	-0.005	5.340	0.101	0.084	-0.002	5.460	0.415	0.286	-0.012
5.180	0.417	0.298	-0.004	5.340	0.141	0.097	-0.002	5.460	0.455	0.290	-0.008
5.180	0.456	0.314	-0.005	5.340	0.180	0.114	-0.002	5.460	0.494	0.279	-0.008
5.180	0.495	0.305	-0.004	5.340	0.219	0.142	-0.003	5.460	0.533	0.251	-0.009
5.180	0.535	0.278	-0.004	5.340	0.259	0.171	-0.008	5.460	0.573	0.206	-0.007
5.180	0.574	0.243	-0.005	5.340	0.298	0.208	-0.006	5.500	0.022	0.055	-0.001
5.220	0.023	0.063	-0.003	5.340	0.337	0.241	-0.009	5.500	0.061	0.073	-0.003
5.220	0.063	0.073	-0.002	5.340	0.377	0.275	-0.008	5.500	0.101	0.088	-0.003
5.220	0.102	0.086	-0.002	5.340	0.416	0.291	-0.008	5.500	0.140	0.106	-0.006
5.220	0.141	0.094	-0.002	5.340	0.455	0.304	-0.008	5.500	0.179	0.127	-0.012
5.220	0.181	0.109	-0.003	5.340	0.495	0.298	-0.005	5.500	0.218	0.152	-0.013
5.220	0.220	0.138	-0.004	5.340	0.534	0.269	-0.008	5.500	0.258	0.183	-0.011
5.220	0.259	0.167	-0.005	5.340	0.573	0.227	-0.007	5.500	0.297	0.213	-0.013
5.220	0.298	0.203	-0.009	5.380	0.022	0.055	0.000	5.500	0.336	0.246	-0.013
5.220	0.338	0.237	-0.006	5.380	0.062	0.067	-0.001	5.500	0.376	0.274	-0.017
5.220	0.377	0.275	-0.008	5.380	0.101	0.080	-0.001	5.500	0.415	0.284	-0.013
5.220	0.416	0.300	-0.007	5.380	0.140	0.093	-0.001	5.500	0.454	0.283	-0.011
5.220	0.456	0.310	-0.005	5.380	0.180	0.114	0.000	5.500	0.494	0.273	-0.010
5.220	0.495	0.307	-0.003	5.380	0.219	0.142	-0.006	5.500	0.533	0.243	-0.010
5.220	0.534	0.281	-0.004	5.380	0.258	0.174	-0.008	5.500	0.572	0.197	-0.007
5.220	0.574	0.242	-0.003	5.380	0.298	0.209	-0.009	5.540	0.022	0.055	-0.003
5.260	0.023	0.058	-0.003	5.380	0.337	0.248	-0.010	5.540	0.061	0.074	-0.004
5.260	0.062	0.073	-0.002	5.380	0.376	0.276	-0.009	5.540	0.100	0.093	-0.004
5.260	0.102	0.085	-0.002	5.380	0.416	0.292	-0.008	5.540	0.140	0.114	-0.006





5.540	0.179	0.131	-0.017	5.660	0.493	0.236	-0.014	5.840	0.221	0.235	-0.084
5.540	0.218	0.158	-0.014	5.660	0.532	0.205	-0.011	5.840	0.261	0.251	-0.115
5.540	0.258	0.186	-0.015	5.660	0.572	0.155	-0.003	5.840	0.300	0.260	-0.132
5.540	0.297	0.212	-0.014	5.700	0.021	0.077	-0.004	5.840	0.339	-0.010	0.005
5.540	0.336	0.250	-0.015	5.700	0.060	0.105	-0.005	5.880	0.025	0.198	-0.002
5.540	0.376	0.269	-0.017	5.700	0.100	0.111	-0.004	5.880	0.064	0.208	-0.003
5.540	0.415	0.277	-0.014	5.700	0.139	0.132	-0.009	5.880	0.103	0.224	-0.003
5.540	0.454	0.277	-0.013	5.700	0.178	0.161	-0.024	5.880	0.143	0.241	-0.011
5.540	0.494	0.265	-0.010	5.700	0.218	0.186	-0.026	5.880	0.182	0.238	-0.062
5.540	0.533	0.235	-0.009	5.700	0.257	0.215	-0.033	5.880	0.221	0.255	-0.069
5.540	0.572	0.191	-0.005	5.700	0.296	0.234	-0.050	5.880	0.261	0.213	-0.091
5.580	0.021	0.060	-0.002	5.700	0.335	0.252	-0.059	5.880	0.300	0.163	-0.099
5.580	0.061	0.082	-0.003	5.700	0.375	0.265	-0.048	5.920	0.025	0.210	-0.004
5.580	0.100	0.097	-0.004	5.700	0.414	0.263	-0.038	5.920	0.064	0.224	-0.006
5.580	0.139	0.110	-0.006	5.700	0.453	0.244	-0.022	5.920	0.103	0.257	-0.005
5.580	0.179	0.134	-0.013	5.700	0.493	0.219	-0.017	5.920	0.143	0.274	-0.011
5.580	0.218	0.161	-0.022	5.700	0.532	0.174	-0.009	5.920	0.182	0.265	-0.056
5.580	0.257	0.191	-0.018	5.700	0.571	0.109	-0.001	5.920	0.221	0.253	-0.112
5.580	0.297	0.218	-0.019	5.740	0.021	0.072	-0.001	5.920	0.261	0.183	-0.080
5.580	0.336	0.251	-0.021	5.740	0.060	0.081	-0.002	5.920	0.300	0.077	-0.022
5.580	0.375	0.268	-0.018	5.740	0.099	0.100	-0.002	5.960	0.025	0.238	-0.003
5.580	0.415	0.277	-0.015	5.740	0.139	0.139	-0.007	5.960	0.064	0.250	-0.003
5.580	0.454	0.270	-0.013	5.740	0.178	0.154	-0.014	5.960	0.103	0.273	-0.005
5.580	0.493	0.255	-0.011	5.740	0.217	0.190	-0.065	5.960	0.143	0.296	-0.020
5.580	0.533	0.225	-0.009	5.740	0.257	0.225	-0.020	5.960	0.182	0.285	-0.084
5.580	0.572	0.184	-0.002	5.740	0.296	0.247	-0.044	5.960	0.221	0.263	-0.124
5.620	0.021	0.071	-0.002	5.740	0.335	0.270	-0.044	5.960	0.261	0.248	-0.134
5.620	0.061	0.088	-0.004	5.740	0.375	0.284	-0.060	5.960	0.300	0.046	-0.013
5.620	0.100	0.097	-0.003	5.740	0.414	0.268	-0.120	6.000	0.025	0.248	-0.004
5.620	0.139	0.115	-0.006	5.760	0.025	0.145	-0.002	6.000	0.064	0.259	-0.002
5.620	0.179	0.142	-0.016	5.760	0.064	0.158	-0.007	6.000	0.103	0.280	-0.007
5.620	0.218	0.162	-0.023	5.760	0.103	0.181	-0.008	6.000	0.143	0.297	-0.042
5.620	0.257	0.190	-0.030	5.760	0.143	0.198	-0.014	6.000	0.182	0.283	-0.097
5.620	0.297	0.223	-0.027	5.760	0.182	0.198	-0.049	6.000	0.221	0.233	-0.128
5.620	0.336	0.247	-0.025	5.760	0.221	0.217	-0.093	6.000	0.261	0.226	-0.130
5.620	0.375	0.265	-0.024	5.760	0.261	0.230	-0.103	6.000	0.300	0.023	0.001
5.620	0.415	0.271	-0.017	5.760	0.300	0.235	-0.101	6.040	0.025	0.257	-0.002
5.620	0.454	0.264	-0.014	5.760	0.339	0.187	-0.085	6.040	0.064	0.276	-0.003
5.620	0.493	0.246	-0.012	5.760	0.379	0.059	-0.038	6.040	0.103	0.300	-0.009
5.620	0.533	0.214	-0.010	5.800	0.025	0.164	-0.004	6.040	0.143	0.308	-0.031
5.620	0.572	0.173	-0.004	5.800	0.064	0.171	-0.005	6.040	0.182	0.297	-0.054
5.660	0.021	0.072	-0.003	5.800	0.103	0.196	-0.009	6.040	0.221	0.270	-0.078
5.660	0.060	0.093	-0.005	5.800	0.143	0.204	-0.016	6.040	0.261	0.164	-0.089
5.660	0.100	0.100	-0.003	5.800	0.182	0.192	-0.049	6.040	0.300	0.028	-0.002
5.660	0.139	0.123	-0.006	5.800	0.221	0.219	-0.100	6.080	0.025	0.279	-0.001
5.660	0.178	0.146	-0.018	5.800	0.261	0.248	-0.105	6.080	0.064	0.293	-0.005
5.660	0.218	0.171	-0.020	5.800	0.300	0.193	-0.080	6.080	0.103	0.304	-0.008
5.660	0.257	0.198	-0.027	5.800	0.339	0.132	-0.062	6.080	0.143	0.310	-0.016
5.660	0.296	0.228	-0.037	5.840	0.025	0.181	-0.002	6.080	0.182	0.307	-0.055
5.660	0.336	0.245	-0.037	5.840	0.064	0.192	-0.004	6.080	0.221	0.283	-0.040
5.660	0.375	0.265	-0.033	5.840	0.103	0.214	-0.005	6.080	0.261	0.198	-0.047
5.660	0.414	0.270	-0.024	5.840	0.143	0.222	-0.016	6.080	0.300	0.051	-0.004
5.660	0.454	0.258	-0.018	5.840	0.182	0.228	-0.057	6.120	0.025	0.282	0.000





6.120	0.064	0.294	-0.003	6.310	0.339	0.145	-0.001	6.470	0.182	0.384	-0.004
6.120	0.103	0.324	-0.007	6.310	0.379	0.119	0.001	6.470	0.221	0.364	-0.001
6.120	0.143	0.347	-0.005	6.310	0.418	0.101	-0.005	6.470	0.261	0.278	0.003
6.120	0.182	0.336	-0.016	6.310	0.457	0.088	-0.003	6.470	0.300	0.187	-0.001
6.120	0.221	0.310	-0.029	6.310	0.497	0.078	-0.002	6.470	0.339	0.156	0.002
6.120	0.261	0.231	-0.038	6.350	0.025	0.303	0.002	6.470	0.379	0.131	0.003
6.120	0.300	0.081	-0.005	6.350	0.064	0.314	0.001	6.470	0.418	0.107	0.001
6.160	0.025	0.292	-0.001	6.350	0.103	0.343	0.001	6.470	0.457	0.093	-0.003
6.160	0.064	0.312	-0.003	6.350	0.143	0.357	0.001	6.470	0.497	0.095	-0.002
6.160	0.103	0.329	-0.002	6.350	0.182	0.369	-0.001	6.470	0.536	0.096	-0.001
6.160	0.143	0.344	-0.003	6.350	0.221	0.383	-0.004	6.470	0.575	0.094	0.000
6.160	0.182	0.354	-0.008	6.350	0.261	0.278	-0.002	6.510	0.025	0.281	0.002
6.160	0.221	0.342	-0.009	6.350	0.300	0.191	0.000	6.510	0.064	0.304	0.002
6.160	0.261	0.246	-0.006	6.350	0.379	0.124	0.002	6.510	0.103	0.344	0.001
6.160	0.300	0.161	-0.005	6.350	0.418	0.100	-0.004	6.510	0.182	0.383	-0.002
6.200	0.025	0.294	-0.001	6.350	0.457	0.097	-0.003	6.510	0.221	0.354	-0.003
6.200	0.064	0.312	-0.002	6.350	0.497	0.103	-0.002	6.510	0.261	0.268	0.000
6.200	0.103	0.337	-0.002	6.350	0.536	0.099	-0.003	6.510	0.300	0.189	0.000
6.200	0.143	0.350	-0.004	6.350	0.575	0.091	-0.003	6.510	0.339	0.152	0.002
6.200	0.182	0.362	-0.008	6.390	0.025	0.299	0.002	6.510	0.379	0.125	0.002
6.200	0.221	0.366	-0.010	6.390	0.064	0.311	0.001	6.510	0.418	0.097	-0.002
6.200	0.261	0.263	-0.003	6.390	0.103	0.346	-0.002	6.510	0.457	0.087	-0.004
6.200	0.300	0.162	-0.005	6.390	0.143	0.359	0.001	6.510	0.497	0.095	-0.002
6.200	0.339	0.100	-0.002	6.390	0.182	0.379	0.000	6.510	0.536	0.098	-0.001
6.230	0.300	0.159	-0.004	6.390	0.221	0.377	-0.002	6.510	0.575	0.090	-0.001
6.230	0.339	0.141	-0.003	6.390	0.261	0.283	-0.001	6.550	0.025	0.289	0.003
6.230	0.379	0.075	-0.005	6.390	0.300	0.174	-0.001	6.550	0.064	0.304	0.002
6.240	0.025	0.295	-0.001	6.390	0.339	0.153	0.000	6.550	0.103	0.336	0.000
6.240	0.064	0.314	0.000	6.390	0.379	0.119	-0.001	6.550	0.143	0.366	-0.001
6.240	0.103	0.347	-0.001	6.390	0.418	0.096	0.000	6.550	0.182	0.381	-0.003
6.240	0.143	0.356	-0.002	6.390	0.457	0.096	-0.001	6.550	0.221	0.341	-0.001
6.240	0.182	0.363	-0.007	6.390	0.497	0.097	-0.001	6.550	0.261	0.247	0.003
6.240	0.221	0.359	-0.006	6.390	0.536	0.096	-0.002	6.550	0.300	0.185	0.004
6.240	0.261	0.265	-0.005	6.390	0.575	0.081	-0.002	6.550	0.339	0.147	0.001
6.270	0.143	0.360	-0.001	6.430	0.025	0.282	0.003	6.550	0.379	0.128	0.004
6.270	0.182	0.372	-0.005	6.430	0.064	0.310	0.001	6.550	0.418	0.099	-0.002
6.270	0.221	0.374	-0.004	6.430	0.103	0.343	0.000	6.550	0.457	0.098	-0.004
6.270	0.261	0.278	-0.005	6.430	0.143	0.367	-0.001	6.550	0.497	0.100	-0.002
6.270	0.300	0.172	-0.005	6.430	0.182	0.395	-0.004	6.550	0.536	0.095	0.000
6.270	0.339	0.145	-0.003	6.430	0.221	0.372	0.000	6.550	0.575	0.087	-0.001
6.270	0.379	0.112	-0.001	6.430	0.261	0.272	-0.001	6.590	0.025	0.293	0.003
6.270	0.418	0.082	-0.003	6.430	0.300	0.175	-0.001	6.590	0.064	0.304	0.002
6.280	0.025	0.307	0.000	6.430	0.339	0.156	0.001	6.590	0.103	0.338	0.000
6.280	0.064	0.316	0.000	6.430	0.379	0.124	0.001	6.590	0.143	0.372	-0.003
6.280	0.103	0.340	0.000	6.430	0.418	0.101	0.000	6.590	0.182	0.380	-0.003
6.310	0.025	0.301	0.001	6.430	0.457	0.099	-0.002	6.590	0.221	0.345	-0.001
6.310	0.064	0.321	0.000	6.430	0.497	0.095	-0.001	6.590	0.261	0.251	0.002
6.310	0.103	0.344	0.002	6.430	0.536	0.093	-0.003	6.590	0.300	0.198	0.004
6.310	0.143	0.366	-0.001	6.430	0.575	0.085	0.000	6.590	0.339	0.151	0.001
6.310	0.182	0.375	-0.003	6.470	0.025	0.281	0.002	6.590	0.379	0.115	0.005
6.310	0.221	0.382	-0.008	6.470	0.064	0.306	-0.001	6.590	0.418	0.096	-0.001
6.310	0.261	0.284	-0.002	6.470	0.103	0.347	0.001	6.590	0.457	0.101	-0.004
6.310	0.300	0.200	-0.001	6.470	0.143	0.364	-0.002	6.590	0.497	0.105	0.000





6.590	0.536	0.099	-0.001	6.750	0.103	0.352	0.001	6.900	0.025	0.307	0.000
6.590	0.575	0.084	0.000	6.750	0.143	0.387	-0.002	6.900	0.064	0.315	-0.001
6.630	0.025	0.292	0.002	6.750	0.182	0.374	-0.003	6.900	0.103	0.368	-0.002
6.630	0.064	0.299	0.002	6.750	0.221	0.338	-0.003	6.900	0.143	0.402	-0.001
6.630	0.103	0.327	0.003	6.750	0.261	0.245	-0.005	6.900	0.182	0.377	0.000
6.630	0.143	0.380	-0.006	6.750	0.300	0.179	-0.002	6.900	0.221	0.321	0.003
6.630	0.182	0.387	-0.006	6.750	0.339	0.152	-0.002	6.900	0.261	0.240	-0.002
6.630	0.221	0.341	-0.001	6.750	0.379	0.130	-0.001	6.900	0.300	0.186	-0.001
6.630	0.261	0.268	-0.001	6.780	0.261	0.242	-0.002	6.900	0.339	0.152	-0.003
6.630	0.300	0.198	0.002	6.780	0.300	0.180	-0.001	6.900	0.379	0.116	-0.003
6.630	0.339	0.130	0.000	6.780	0.339	0.153	-0.002	6.900	0.418	0.099	-0.005
6.630	0.379	0.108	0.001	6.780	0.379	0.131	0.000	6.900	0.457	0.095	-0.005
6.630	0.418	0.103	0.000	6.780	0.418	0.104	-0.005	6.900	0.497	0.094	-0.003
6.630	0.457	0.102	-0.002	6.780	0.457	0.100	-0.002	6.900	0.536	0.090	-0.001
6.630	0.497	0.102	-0.003	6.780	0.497	0.101	-0.003	6.900	0.575	0.066	-0.001
6.630	0.536	0.101	-0.002	6.780	0.536	0.095	-0.003	6.940	0.025	0.312	0.000
6.630	0.575	0.088	-0.001	6.780	0.575	0.073	-0.001	6.940	0.064	0.319	-0.001
6.670	0.025	0.287	0.003	6.790	0.025	0.292	0.000	6.940	0.103	0.352	0.001
6.670	0.064	0.295	0.003	6.790	0.064	0.299	0.000	6.940	0.143	0.401	-0.001
6.670	0.103	0.326	0.001	6.790	0.103	0.353	0.000	6.940	0.182	0.386	0.000
6.670	0.143	0.376	-0.004	6.790	0.143	0.397	-0.008	6.940	0.221	0.355	0.001
6.670	0.182	0.384	-0.005	6.790	0.182	0.376	-0.003	6.940	0.261	0.231	0.000
6.670	0.221	0.337	-0.001	6.790	0.221	0.323	-0.001	6.940	0.300	0.187	-0.002
6.670	0.261	0.257	0.000	6.820	0.103	0.354	0.004	6.940	0.339	0.151	-0.003
6.670	0.300	0.181	-0.002	6.820	0.143	0.377	0.001	6.940	0.379	0.120	-0.001
6.670	0.379	0.118	-0.001	6.820	0.182	0.385	-0.002	6.940	0.418	0.090	-0.003
6.670	0.418	0.108	0.001	6.820	0.221	0.326	-0.001	6.940	0.457	0.090	-0.003
6.670	0.457	0.100	-0.002	6.820	0.261	0.231	-0.001	6.940	0.497	0.091	-0.002
6.670	0.497	0.101	-0.002	6.820	0.300	0.181	-0.003	6.940	0.536	0.082	-0.002
6.670	0.536	0.098	-0.003	6.820	0.339	0.157	-0.002				
6.670	0.575	0.086	-0.001	6.820	0.379	0.128	-0.001				
6.700	0.575	0.082	-0.001	6.820	0.418	0.103	-0.002				
6.710	0.025	0.290	0.002	6.820	0.457	0.101	-0.001				
6.710	0.064	0.303	0.001	6.820	0.497	0.102	-0.003				
6.710	0.103	0.347	0.004	6.820	0.536	0.096	-0.004				
6.710	0.143	0.392	-0.004	6.820	0.575	0.087	-0.001				
6.710	0.182	0.375	-0.003	6.830	0.025	0.309	0.001				
6.710	0.221	0.343	-0.003	6.830	0.064	0.317	0.000				
6.710	0.261	0.254	-0.002	6.860	0.025	0.290	0.001				
6.710	0.300	0.171	-0.003	6.860	0.064	0.308	0.001				
6.710	0.339	0.149	-0.001	6.860	0.103	0.358	0.001				
6.710	0.379	0.131	0.000	6.860	0.143	0.379	-0.001				
6.710	0.418	0.109	-0.002	6.860	0.182	0.381	-0.002				
6.710	0.457	0.101	-0.002	6.860	0.221	0.315	0.001				
6.710	0.497	0.105	-0.002	6.860	0.261	0.232	-0.001				
6.710	0.536	0.095	-0.001	6.860	0.300	0.179	-0.002				
6.740	0.418	0.107	-0.003	6.860	0.339	0.157	-0.002				
6.740	0.457	0.106	-0.004	6.860	0.379	0.123	0.000				
6.740	0.497	0.107	-0.003	6.860	0.418	0.101	-0.002				
6.740	0.536	0.101	-0.002	6.860	0.457	0.098	-0.002				
6.740	0.575	0.079	0.000	6.860	0.497	0.098	-0.003				
6.750	0.025	0.289	0.000	6.860	0.536	0.094	-0.003				
6.750	0.064	0.297	0.000	6.860	0.575	0.071	0.000				





# Vegetation Density 0.6%

X	Y	V <sub>X</sub>	V <sub>Y</sub>	X	Y	V <sub>X</sub>	V <sub>Y</sub>	X	Y	V <sub>X</sub>	V <sub>Y</sub>
0.440	0.036	0.159	-0.004	0.570	0.272	0.233	-0.007	0.690	0.507	0.270	-0.003
0.440	0.076	0.174	-0.005	0.570	0.311	0.259	-0.007	0.690	0.546	0.247	-0.004
0.440	0.115	0.189	-0.005	0.570	0.351	0.289	-0.006	0.690	0.586	0.191	-0.004
0.450	0.155	0.189	-0.005	0.570	0.390	0.299	-0.005	0.720	0.032	0.162	-0.004
0.450	0.194	0.196	-0.006	0.570	0.430	0.294	-0.003	0.720	0.071	0.186	-0.004
0.450	0.234	0.210	-0.006	0.570	0.469	0.285	-0.003	0.720	0.111	0.198	-0.004
0.450	0.273	0.230	-0.006	0.570	0.509	0.277	-0.002	0.720	0.150	0.201	-0.005
0.450	0.313	0.256	-0.006	0.570	0.548	0.251	-0.003	0.730	0.190	0.207	-0.006
0.450	0.353	0.282	-0.006	0.570	0.588	0.200	-0.003	0.730	0.229	0.215	-0.008
0.450	0.392	0.299	-0.004	0.600	0.034	0.161	-0.005	0.730	0.269	0.232	-0.008
0.450	0.432	0.292	-0.001	0.600	0.073	0.180	-0.004	0.730	0.308	0.253	-0.007
0.450	0.471	0.280	-0.002	0.600	0.113	0.200	-0.004	0.730	0.348	0.282	-0.008
0.450	0.511	0.270	-0.002	0.610	0.152	0.204	-0.005	0.730	0.388	0.290	-0.006
0.450	0.550	0.243	0.000	0.610	0.192	0.209	-0.005	0.730	0.427	0.285	-0.005
0.450	0.590	0.194	-0.003	0.610	0.231	0.217	-0.005	0.730	0.467	0.278	-0.005
0.480	0.035	0.158	-0.004	0.610	0.271	0.233	-0.007	0.730	0.506	0.272	-0.003
0.480	0.075	0.176	-0.005	0.610	0.310	0.260	-0.006	0.730	0.546	0.244	-0.003
0.490	0.115	0.192	-0.004	0.610	0.350	0.286	-0.005	0.730	0.585	0.194	-0.004
0.490	0.154	0.190	-0.004	0.610	0.390	0.296	-0.005	0.760	0.031	0.164	-0.004
0.490	0.194	0.194	-0.005	0.610	0.429	0.294	-0.003	0.760	0.070	0.187	-0.004
0.490	0.233	0.213	-0.007	0.610	0.469	0.285	-0.002	0.760	0.110	0.199	-0.004
0.490	0.273	0.235	-0.006	0.610	0.508	0.275	-0.002	0.760	0.150	0.197	-0.004
0.490	0.312	0.260	-0.005	0.610	0.548	0.245	-0.003	0.760	0.189	0.207	-0.006
0.490	0.352	0.286	-0.004	0.610	0.587	0.192	-0.003	0.760	0.229	0.218	-0.008
0.490	0.391	0.299	-0.004	0.640	0.033	0.160	-0.004	0.770	0.268	0.233	-0.008
0.490	0.431	0.284	-0.004	0.640	0.072	0.182	-0.004	0.770	0.308	0.255	-0.009
0.490	0.471	0.280	-0.002	0.640	0.112	0.198	-0.004	0.770	0.347	0.284	-0.009
0.490	0.510	0.270	-0.002	0.640	0.152	0.204	-0.005	0.770	0.387	0.289	-0.008
0.490	0.550	0.249	0.000	0.640	0.191	0.209	-0.005	0.770	0.427	0.286	-0.005
0.490	0.589	0.203	-0.003	0.650	0.231	0.217	-0.005	0.770	0.466	0.279	-0.005
0.520	0.035	0.160	-0.004	0.650	0.270	0.234	-0.007	0.770	0.506	0.270	-0.003
0.520	0.074	0.181	-0.005	0.650	0.310	0.256	-0.008	0.770	0.545	0.243	-0.003
0.520	0.114	0.198	-0.003	0.650	0.349	0.281	-0.006	0.770	0.585	0.193	-0.004
0.520	0.153	0.201	-0.005	0.650	0.389	0.288	-0.006	0.800	0.030	0.169	-0.004
0.530	0.193	0.205	-0.006	0.650	0.428	0.291	-0.003	0.800	0.070	0.189	-0.003
0.530	0.233	0.212	-0.007	0.650	0.468	0.283	-0.002	0.800	0.109	0.203	-0.004
0.530	0.272	0.232	-0.006	0.650	0.508	0.270	-0.002	0.800	0.149	0.202	-0.005
0.530	0.312	0.262	-0.005	0.650	0.547	0.243	-0.003	0.800	0.189	0.208	-0.006
0.530	0.351	0.289	-0.006	0.650	0.587	0.185	-0.003	0.810	0.228	0.220	-0.008
0.530	0.391	0.299	-0.006	0.680	0.032	0.160	-0.004	0.810	0.268	0.236	-0.009
0.530	0.430	0.293	-0.002	0.680	0.072	0.184	-0.004	0.810	0.307	0.259	-0.009
0.530	0.470	0.286	-0.003	0.680	0.111	0.196	-0.004	0.810	0.347	0.285	-0.009
0.530	0.509	0.272	-0.003	0.680	0.151	0.203	-0.005	0.810	0.386	0.290	-0.008
0.530	0.549	0.252	-0.002	0.690	0.190	0.207	-0.005	0.810	0.426	0.287	-0.007
0.530	0.589	0.197	-0.003	0.690	0.230	0.216	-0.007	0.810	0.465	0.277	-0.006
0.560	0.034	0.161	-0.004	0.690	0.270	0.232	-0.007	0.810	0.505	0.267	-0.004
0.560	0.074	0.183	-0.004	0.690	0.309	0.252	-0.007	0.810	0.545	0.239	-0.004
0.560	0.113	0.200	-0.004	0.690	0.349	0.282	-0.007	0.810	0.584	0.192	-0.003
0.560	0.153	0.204	-0.005	0.690	0.388	0.289	-0.007	0.840	0.030	0.170	-0.004
0.570	0.192	0.209	-0.006	0.690	0.428	0.292	-0.004	0.840	0.069	0.191	-0.003
0.570	0.232	0.217	-0.007	0.690	0.467	0.280	-0.003	0.840	0.109	0.204	-0.004





0.840	0.148	0.207	-0.006	0.970	0.463	0.118	-0.006	1.200	0.301	0.061	-0.001
0.840	0.188	0.214	-0.008	0.970	0.502	0.063	-0.002	1.240	0.023	0.216	-0.003
0.850	0.227	0.222	-0.009	1.000	0.027	0.193	-0.004	1.240	0.063	0.234	-0.005
0.850	0.267	0.240	-0.010	1.000	0.067	0.210	-0.004	1.240	0.102	0.242	-0.007
0.850	0.307	0.264	-0.010	1.000	0.106	0.221	-0.005	1.240	0.142	0.247	-0.009
0.850	0.346	0.285	-0.010	1.000	0.146	0.223	-0.007	1.240	0.181	0.254	-0.011
0.850	0.386	0.291	-0.009	1.000	0.185	0.233	-0.011	1.240	0.221	0.259	-0.014
0.850	0.425	0.286	-0.008	1.000	0.225	0.246	-0.012	1.240	0.261	0.259	-0.022
0.850	0.465	0.276	-0.006	1.000	0.264	0.269	-0.013	1.240	0.300	0.072	-0.006
0.850	0.504	0.266	-0.005	1.000	0.304	0.292	-0.015	1.280	0.023	0.220	-0.004
0.850	0.544	0.238	-0.005	1.000	0.344	0.295	-0.015	1.280	0.062	0.236	-0.006
0.850	0.583	0.193	-0.004	1.010	0.383	0.263	-0.017	1.280	0.102	0.242	-0.007
0.880	0.029	0.179	-0.004	1.040	0.026	0.196	-0.003	1.280	0.141	0.247	-0.009
0.880	0.069	0.196	-0.003	1.040	0.066	0.213	-0.004	1.280	0.181	0.254	-0.012
0.880	0.108	0.210	-0.005	1.040	0.106	0.225	-0.006	1.280	0.220	0.253	-0.017
0.880	0.148	0.213	-0.006	1.040	0.145	0.230	-0.007	1.280	0.260	0.243	-0.023
0.880	0.187	0.220	-0.009	1.040	0.185	0.242	-0.011	1.280	0.299	0.046	0.001
0.880	0.227	0.228	-0.010	1.040	0.224	0.254	-0.013	1.320	0.022	0.218	-0.004
0.880	0.266	0.245	-0.011	1.040	0.264	0.276	-0.015	1.320	0.061	0.233	-0.006
0.890	0.306	0.271	-0.011	1.040	0.303	0.294	-0.018	1.320	0.101	0.244	-0.006
0.890	0.345	0.286	-0.011	1.040	0.343	0.269	-0.018	1.320	0.141	0.247	-0.009
0.890	0.385	0.291	-0.010	1.080	0.026	0.202	-0.004	1.320	0.180	0.257	-0.011
0.890	0.425	0.286	-0.009	1.080	0.065	0.218	-0.004	1.320	0.220	0.260	-0.014
0.890	0.464	0.277	-0.006	1.080	0.105	0.230	-0.006	1.320	0.259	0.246	-0.025
0.890	0.504	0.264	-0.005	1.080	0.144	0.225	-0.008	1.320	0.299	0.039	-0.004
0.890	0.543	0.237	-0.005	1.080	0.184	0.242	-0.011	1.360	0.021	0.219	-0.003
0.890	0.583	0.179	-0.005	1.080	0.224	0.259	-0.012	1.360	0.061	0.236	-0.006
0.920	0.028	0.186	-0.003	1.080	0.263	0.279	-0.016	1.360	0.100	0.246	-0.006
0.920	0.068	0.203	-0.003	1.080	0.303	0.265	-0.030	1.360	0.140	0.253	-0.008
0.920	0.107	0.217	-0.005	1.090	0.342	0.133	-0.013	1.360	0.179	0.260	-0.011
0.920	0.147	0.219	-0.006	1.120	0.025	0.206	-0.004	1.360	0.219	0.264	-0.012
0.920	0.187	0.222	-0.009	1.120	0.065	0.221	-0.005	1.360	0.259	0.257	-0.017
0.920	0.226	0.233	-0.010	1.120	0.104	0.233	-0.006	1.360	0.298	0.104	-0.007
0.930	0.266	0.251	-0.011	1.120	0.144	0.238	-0.008	1.400	0.021	0.222	-0.003
0.930	0.305	0.277	-0.011	1.120	0.183	0.248	-0.011	1.400	0.060	0.237	-0.004
0.930	0.345	0.288	-0.012	1.120	0.223	0.261	-0.012	1.400	0.100	0.249	-0.006
0.930	0.384	0.288	-0.012	1.120	0.262	0.265	-0.017	1.400	0.139	0.255	-0.008
0.930	0.424	0.285	-0.010	1.120	0.302	0.177	-0.028	1.400	0.179	0.259	-0.010
0.930	0.463	0.274	-0.007	1.160	0.024	0.210	-0.003	1.400	0.218	0.268	-0.012
0.930	0.503	0.230	-0.004	1.160	0.064	0.225	-0.005	1.400	0.258	0.274	-0.013
0.930	0.543	0.179	-0.004	1.160	0.104	0.236	-0.006	1.400	0.298	0.210	-0.011
0.930	0.582	0.133	-0.004	1.160	0.143	0.243	-0.009	1.400	0.337	0.073	-0.014
0.960	0.028	0.190	-0.003	1.160	0.183	0.250	-0.011	1.440	0.020	0.223	-0.004
0.960	0.067	0.206	-0.003	1.160	0.222	0.259	-0.015	1.440	0.060	0.239	-0.005
0.960	0.107	0.220	-0.005	1.160	0.262	0.254	-0.021	1.440	0.099	0.250	-0.005
0.960	0.146	0.221	-0.007	1.160	0.301	0.096	-0.011	1.440	0.139	0.257	-0.007
0.960	0.186	0.226	-0.009	1.200	0.024	0.210	-0.003	1.440	0.178	0.262	-0.009
0.960	0.225	0.240	-0.010	1.200	0.063	0.229	-0.006	1.440	0.218	0.272	-0.011
0.960	0.265	0.259	-0.012	1.200	0.103	0.240	-0.006	1.440	0.257	0.285	-0.009
0.960	0.305	0.285	-0.013	1.200	0.142	0.247	-0.009	1.440	0.297	0.234	-0.010
0.970	0.344	0.295	-0.013	1.200	0.182	0.251	-0.011	1.440	0.336	0.180	-0.011
0.970	0.384	0.290	-0.012	1.200	0.222	0.259	-0.015	1.480	0.019	0.228	-0.004
0.970	0.423	0.249	-0.008	1.200	0.261	0.258	-0.022	1.480	0.059	0.244	-0.006



1.480	0.098	0.254	-0.005	1.640	0.096	0.271	-0.004	1.760	0.410	0.199	-0.003
1.480	0.138	0.260	-0.007	1.640	0.135	0.277	-0.005	1.760	0.450	0.177	-0.003
1.480	0.178	0.267	-0.008	1.640	0.175	0.286	-0.008	1.760	0.489	0.167	-0.004
1.480	0.217	0.280	-0.010	1.640	0.215	0.296	-0.009	1.760	0.529	0.164	-0.004
1.480	0.257	0.283	-0.012	1.640	0.254	0.295	-0.006	1.760	0.569	0.146	-0.002
1.480	0.296	0.246	-0.010	1.640	0.294	0.259	-0.004	1.800	0.014	0.236	-0.002
1.480	0.336	0.233	-0.008	1.640	0.333	0.237	-0.005	1.800	0.054	0.259	-0.002
1.480	0.375	0.203	-0.006	1.640	0.373	0.211	-0.004	1.800	0.093	0.280	-0.003
1.520	0.019	0.230	-0.003	1.640	0.412	0.198	-0.003	1.800	0.133	0.290	-0.005
1.520	0.058	0.248	-0.005	1.640	0.452	0.185	-0.004	1.800	0.172	0.297	-0.007
1.520	0.098	0.259	-0.005	1.640	0.491	0.178	-0.003	1.800	0.212	0.304	-0.008
1.520	0.137	0.265	-0.007	1.640	0.531	0.169	-0.004	1.800	0.251	0.310	-0.006
1.520	0.177	0.274	-0.008	1.640	0.571	0.148	-0.002	1.800	0.291	0.256	-0.004
1.520	0.216	0.289	-0.010	1.680	0.016	0.240	-0.003	1.800	0.331	0.238	-0.004
1.520	0.256	0.293	-0.010	1.680	0.056	0.257	-0.003	1.800	0.370	0.217	-0.003
1.520	0.296	0.252	-0.007	1.680	0.095	0.271	-0.004	1.800	0.410	0.208	-0.002
1.520	0.335	0.234	-0.007	1.680	0.135	0.278	-0.005	1.800	0.449	0.191	-0.002
1.520	0.375	0.214	-0.005	1.680	0.174	0.287	-0.007	1.800	0.489	0.176	-0.003
1.520	0.414	0.201	-0.005	1.680	0.214	0.298	-0.008	1.800	0.528	0.166	-0.005
1.520	0.454	0.142	-0.003	1.680	0.253	0.299	-0.005	1.800	0.568	0.148	-0.003
1.520	0.493	0.161	-0.006	1.680	0.293	0.262	-0.004	1.840	0.013	0.232	-0.002
1.560	0.018	0.234	-0.003	1.680	0.333	0.233	-0.006	1.840	0.053	0.261	-0.003
1.560	0.058	0.251	-0.005	1.680	0.372	0.211	-0.004	1.840	0.093	0.275	-0.004
1.560	0.097	0.263	-0.004	1.680	0.412	0.199	-0.003	1.840	0.132	0.283	-0.005
1.560	0.137	0.270	-0.006	1.680	0.451	0.186	-0.002	1.840	0.172	0.292	-0.006
1.560	0.176	0.279	-0.008	1.680	0.491	0.175	-0.003	1.840	0.211	0.300	-0.008
1.560	0.216	0.293	-0.010	1.680	0.530	0.166	-0.003	1.840	0.251	0.299	-0.006
1.560	0.255	0.289	-0.010	1.680	0.570	0.147	-0.002	1.840	0.290	0.252	-0.004
1.560	0.295	0.253	-0.006	1.720	0.015	0.233	-0.003	1.840	0.330	0.238	-0.004
1.560	0.334	0.233	-0.006	1.720	0.055	0.253	-0.004	1.840	0.370	0.215	-0.003
1.560	0.374	0.213	-0.005	1.720	0.095	0.271	-0.004	1.840	0.409	0.205	-0.002
1.560	0.414	0.201	-0.004	1.720	0.134	0.282	-0.004	1.840	0.449	0.188	-0.002
1.560	0.453	0.185	-0.005	1.720	0.174	0.292	-0.006	1.840	0.488	0.171	-0.004
1.570	0.493	0.172	-0.005	1.720	0.213	0.299	-0.007	1.840	0.528	0.165	-0.004
1.570	0.532	0.166	-0.003	1.720	0.253	0.307	-0.005	1.840	0.567	0.149	-0.003
1.570	0.572	0.144	-0.003	1.720	0.292	0.263	-0.005	1.880	0.013	0.240	-0.002
1.600	0.017	0.238	-0.003	1.720	0.332	0.237	-0.006	1.880	0.052	0.262	-0.001
1.600	0.057	0.253	-0.004	1.720	0.371	0.209	-0.005	1.880	0.092	0.278	-0.003
1.600	0.096	0.267	-0.004	1.720	0.411	0.192	-0.004	1.880	0.132	0.282	-0.004
1.600	0.136	0.273	-0.006	1.720	0.451	0.179	-0.002	1.880	0.171	0.291	-0.005
1.600	0.176	0.283	-0.008	1.720	0.490	0.162	-0.005	1.880	0.211	0.303	-0.008
1.600	0.215	0.295	-0.010	1.720	0.530	0.161	-0.003	1.880	0.250	0.301	-0.006
1.600	0.255	0.298	-0.008	1.730	0.569	0.144	-0.002	1.880	0.290	0.256	-0.004
1.600	0.294	0.260	-0.006	1.760	0.015	0.235	-0.002	1.880	0.329	0.238	-0.004
1.600	0.334	0.234	-0.006	1.760	0.054	0.256	-0.003	1.880	0.369	0.217	-0.004
1.600	0.373	0.213	-0.005	1.760	0.094	0.278	-0.004	1.880	0.408	0.204	-0.004
1.600	0.413	0.199	-0.004	1.760	0.133	0.284	-0.005	1.880	0.448	0.188	-0.003
1.600	0.453	0.188	-0.005	1.760	0.173	0.296	-0.006	1.880	0.488	0.173	-0.003
1.600	0.492	0.178	-0.005	1.760	0.213	0.305	-0.007	1.880	0.527	0.162	-0.004
1.610	0.532	0.170	-0.004	1.760	0.252	0.305	-0.007	1.880	0.567	0.145	-0.003
1.610	0.571	0.148	-0.003	1.760	0.292	0.256	-0.005	1.920	0.026	0.237	-0.001
1.640	0.017	0.242	-0.003	1.760	0.331	0.237	-0.005	1.920	0.065	0.262	-0.002
1.640	0.056	0.256	-0.005	1.760	0.371	0.209	-0.005	1.920	0.104	0.280	-0.002





1.920	0.144	0.286	-0.003	2.040	0.457	0.183	0.000	2.190	0.181	0.300	-0.005
1.920	0.183	0.297	-0.004	2.040	0.497	0.173	0.000	2.190	0.221	0.308	-0.005
1.920	0.222	0.309	-0.005	2.040	0.536	0.163	-0.001	2.190	0.260	0.285	-0.003
1.920	0.262	0.297	-0.003	2.040	0.575	0.145	-0.001	2.190	0.299	0.249	-0.002
1.920	0.301	0.249	-0.001	2.070	0.025	0.228	0.000	2.190	0.339	0.222	-0.001
1.920	0.340	0.227	-0.001	2.070	0.064	0.256	-0.001	2.190	0.378	0.206	-0.001
1.920	0.379	0.208	0.000	2.070	0.103	0.279	-0.002	2.190	0.417	0.194	-0.001
1.920	0.419	0.195	0.001	2.080	0.143	0.287	-0.003	2.190	0.457	0.181	-0.001
1.920	0.458	0.183	0.000	2.080	0.182	0.297	-0.005	2.190	0.496	0.174	0.000
1.920	0.497	0.175	-0.001	2.080	0.221	0.303	-0.004	2.190	0.535	0.165	0.000
1.920	0.537	0.168	-0.001	2.080	0.261	0.284	-0.002	2.190	0.575	0.147	0.000
1.920	0.576	0.148	-0.001	2.080	0.300	0.246	-0.002	2.230	0.024	0.226	0.000
1.960	0.025	0.235	0.000	2.080	0.339	0.223	-0.001	2.230	0.063	0.258	-0.002
1.960	0.065	0.262	-0.002	2.080	0.379	0.204	-0.002	2.230	0.103	0.284	-0.002
1.960	0.104	0.279	-0.002	2.080	0.418	0.194	-0.001	2.230	0.142	0.291	-0.003
1.960	0.143	0.289	-0.003	2.080	0.457	0.182	0.000	2.230	0.181	0.299	-0.004
1.960	0.183	0.296	-0.003	2.080	0.497	0.174	0.000	2.230	0.221	0.304	-0.004
1.960	0.222	0.303	-0.005	2.080	0.536	0.165	-0.002	2.230	0.260	0.289	-0.004
1.960	0.261	0.292	-0.002	2.080	0.575	0.145	0.000	2.230	0.299	0.247	-0.001
1.960	0.301	0.247	-0.001	2.110	0.025	0.227	0.000	2.230	0.338	0.223	-0.001
1.960	0.340	0.228	-0.002	2.110	0.064	0.254	-0.002	2.230	0.378	0.205	-0.001
1.960	0.379	0.208	0.000	2.110	0.103	0.283	-0.002	2.230	0.417	0.192	0.000
1.960	0.419	0.196	-0.001	2.110	0.143	0.290	-0.003	2.230	0.456	0.184	-0.001
1.960	0.458	0.182	-0.001	2.110	0.182	0.299	-0.004	2.230	0.496	0.175	0.000
1.960	0.497	0.172	-0.001	2.110	0.221	0.305	-0.003	2.230	0.535	0.166	0.000
1.960	0.537	0.165	-0.002	2.110	0.260	0.284	-0.003	2.230	0.574	0.146	-0.001
1.960	0.576	0.146	-0.001	2.110	0.300	0.246	-0.001	2.270	0.024	0.219	0.000
2.000	0.025	0.233	0.000	2.110	0.339	0.224	0.000	2.270	0.063	0.251	-0.001
2.000	0.065	0.259	-0.001	2.110	0.378	0.206	-0.001	2.270	0.102	0.281	-0.002
2.000	0.104	0.279	-0.002	2.120	0.418	0.194	-0.001	2.270	0.142	0.293	-0.003
2.000	0.143	0.289	-0.002	2.120	0.457	0.182	-0.001	2.270	0.181	0.304	-0.004
2.000	0.182	0.298	-0.004	2.120	0.496	0.173	-0.001	2.270	0.220	0.312	-0.003
2.000	0.222	0.307	-0.004	2.120	0.536	0.165	-0.001	2.270	0.260	0.292	-0.001
2.000	0.261	0.292	-0.001	2.120	0.575	0.144	0.001	2.270	0.299	0.249	-0.001
2.000	0.300	0.246	-0.001	2.150	0.024	0.230	0.000	2.270	0.338	0.226	-0.001
2.000	0.340	0.224	-0.001	2.150	0.064	0.253	-0.002	2.270	0.378	0.207	-0.001
2.000	0.379	0.203	-0.001	2.150	0.103	0.281	-0.002	2.270	0.417	0.195	-0.001
2.000	0.418	0.194	0.000	2.150	0.142	0.292	-0.003	2.270	0.456	0.185	0.000
2.000	0.458	0.183	-0.001	2.150	0.182	0.301	-0.005	2.270	0.496	0.176	0.000
2.000	0.497	0.173	0.000	2.150	0.221	0.306	-0.004	2.270	0.535	0.167	0.000
2.000	0.536	0.165	-0.001	2.150	0.260	0.286	-0.001	2.270	0.574	0.149	0.000
2.000	0.576	0.145	-0.001	2.150	0.300	0.248	-0.002	2.310	0.023	0.222	0.001
2.040	0.025	0.230	-0.001	2.150	0.339	0.224	-0.002	2.310	0.063	0.250	-0.001
2.040	0.064	0.257	-0.001	2.150	0.378	0.205	-0.003	2.310	0.102	0.281	-0.002
2.040	0.104	0.279	-0.002	2.150	0.418	0.192	-0.001	2.310	0.141	0.291	-0.004
2.040	0.143	0.285	-0.003	2.150	0.457	0.180	-0.001	2.310	0.181	0.303	-0.004
2.040	0.182	0.297	-0.005	2.150	0.496	0.172	0.000	2.310	0.220	0.314	-0.002
2.040	0.222	0.306	-0.005	2.150	0.535	0.164	-0.001	2.310	0.259	0.300	-0.001
2.040	0.261	0.289	-0.002	2.150	0.575	0.147	0.000	2.310	0.299	0.252	-0.001
2.040	0.300	0.247	-0.001	2.190	0.024	0.232	-0.001	2.310	0.338	0.230	-0.001
2.040	0.340	0.223	-0.002	2.190	0.063	0.256	-0.001	2.310	0.377	0.210	0.000
2.040	0.379	0.204	-0.002	2.190	0.103	0.284	-0.002	2.310	0.417	0.196	0.001
2.040	0.418	0.194	0.000	2.190	0.142	0.290	-0.003	2.310	0.456	0.186	0.000





2.310	0.495	0.176	0.000	2.470	0.219	0.309	-0.003	2.590	0.533	0.169	0.000
2.310	0.535	0.166	-0.001	2.470	0.259	0.296	-0.001	2.590	0.572	0.151	-0.002
2.310	0.574	0.149	0.000	2.470	0.298	0.257	0.000	2.630	0.022	0.220	-0.001
2.350	0.023	0.238	-0.001	2.470	0.337	0.230	0.001	2.630	0.061	0.237	-0.001
2.350	0.063	0.252	-0.002	2.470	0.377	0.215	-0.001	2.630	0.100	0.271	-0.001
2.350	0.102	0.281	-0.002	2.470	0.416	0.204	-0.001	2.630	0.140	0.282	-0.002
2.350	0.141	0.292	-0.003	2.470	0.455	0.188	-0.001	2.630	0.179	0.294	-0.002
2.350	0.181	0.299	-0.004	2.470	0.494	0.178	-0.001	2.630	0.218	0.300	-0.002
2.350	0.220	0.308	-0.001	2.470	0.534	0.168	0.000	2.630	0.258	0.289	-0.001
2.350	0.259	0.292	-0.002	2.470	0.573	0.150	-0.001	2.630	0.297	0.251	0.000
2.350	0.299	0.249	0.000	2.510	0.022	0.227	-0.001	2.630	0.336	0.227	-0.001
2.350	0.338	0.230	0.000	2.510	0.062	0.244	-0.001	2.630	0.376	0.211	0.000
2.350	0.377	0.212	0.001	2.510	0.101	0.276	-0.001	2.630	0.415	0.201	0.000
2.350	0.416	0.199	0.001	2.510	0.140	0.287	-0.002	2.630	0.454	0.186	-0.001
2.350	0.456	0.188	0.000	2.510	0.180	0.296	-0.002	2.630	0.494	0.174	0.000
2.350	0.495	0.176	-0.001	2.510	0.219	0.305	-0.002	2.630	0.533	0.166	-0.001
2.350	0.534	0.165	-0.001	2.510	0.258	0.300	-0.002	2.630	0.572	0.149	-0.001
2.350	0.574	0.148	-0.001	2.510	0.298	0.258	0.000	2.670	0.022	0.220	-0.002
2.390	0.023	0.236	0.000	2.510	0.337	0.230	0.000	2.670	0.061	0.238	0.000
2.390	0.062	0.250	-0.001	2.510	0.376	0.215	0.001	2.670	0.100	0.269	-0.001
2.390	0.102	0.281	-0.002	2.510	0.416	0.204	0.000	2.670	0.140	0.282	-0.001
2.390	0.141	0.292	-0.003	2.510	0.455	0.189	-0.001	2.670	0.179	0.293	-0.001
2.390	0.180	0.300	-0.003	2.510	0.494	0.178	0.000	2.670	0.218	0.298	-0.001
2.390	0.220	0.308	-0.001	2.510	0.534	0.168	-0.001	2.670	0.257	0.287	0.000
2.390	0.259	0.294	0.000	2.510	0.573	0.151	-0.001	2.670	0.297	0.248	-0.003
2.390	0.298	0.249	-0.001	2.550	0.022	0.225	-0.001	2.670	0.336	0.224	0.000
2.390	0.338	0.230	0.000	2.550	0.062	0.241	-0.001	2.670	0.375	0.210	0.001
2.390	0.377	0.213	0.000	2.550	0.101	0.276	-0.001	2.670	0.415	0.198	0.000
2.390	0.416	0.198	0.000	2.550	0.140	0.289	-0.002	2.670	0.454	0.183	-0.001
2.390	0.456	0.190	0.000	2.550	0.179	0.298	-0.002	2.670	0.493	0.175	-0.001
2.390	0.495	0.179	0.000	2.550	0.219	0.301	-0.002	2.670	0.533	0.166	-0.002
2.390	0.534	0.168	-0.001	2.550	0.258	0.292	-0.001	2.670	0.572	0.148	-0.001
2.390	0.574	0.151	0.000	2.550	0.297	0.260	-0.001	2.700	0.021	0.219	-0.002
2.430	0.023	0.234	-0.001	2.550	0.337	0.231	0.000	2.700	0.061	0.238	-0.001
2.430	0.062	0.249	-0.001	2.550	0.376	0.216	-0.001	2.700	0.100	0.270	-0.001
2.430	0.101	0.279	-0.002	2.550	0.415	0.203	-0.001	2.700	0.139	0.281	-0.002
2.430	0.141	0.290	-0.002	2.550	0.455	0.188	0.000	2.700	0.179	0.290	-0.002
2.430	0.180	0.299	-0.003	2.550	0.494	0.178	0.000	2.710	0.218	0.296	0.000
2.430	0.219	0.307	-0.001	2.550	0.533	0.169	0.000	2.710	0.257	0.287	0.001
2.430	0.259	0.296	0.000	2.550	0.573	0.153	-0.001	2.710	0.297	0.248	-0.001
2.430	0.298	0.255	0.000	2.590	0.022	0.222	0.000	2.710	0.336	0.224	0.000
2.430	0.337	0.232	0.000	2.590	0.061	0.238	0.000	2.710	0.375	0.210	0.000
2.430	0.377	0.211	0.001	2.590	0.101	0.274	-0.001	2.710	0.415	0.201	0.000
2.430	0.416	0.200	0.000	2.590	0.140	0.288	-0.002	2.710	0.454	0.185	-0.001
2.430	0.455	0.187	0.001	2.590	0.179	0.298	-0.002	2.710	0.493	0.175	-0.001
2.430	0.495	0.179	0.001	2.590	0.219	0.305	-0.003	2.710	0.533	0.166	-0.001
2.430	0.534	0.169	0.000	2.590	0.258	0.293	-0.002	2.710	0.572	0.149	-0.001
2.430	0.573	0.152	0.000	2.590	0.297	0.253	0.000	2.740	0.021	0.219	-0.001
2.470	0.023	0.229	0.000	2.590	0.337	0.226	0.000	2.740	0.060	0.235	-0.001
2.470	0.062	0.246	-0.001	2.590	0.376	0.213	-0.001	2.740	0.100	0.267	-0.001
2.470	0.101	0.279	-0.002	2.590	0.415	0.201	0.000	2.740	0.139	0.280	-0.002
2.470	0.141	0.291	-0.002	2.590	0.455	0.186	-0.001	2.740	0.178	0.291	-0.002
2.470	0.180	0.301	-0.002	2.590	0.494	0.178	0.000	2.740	0.218	0.300	0.000





2.740	0.257	0.287	0.000	2.860	0.571	0.147	0.000	3.020	0.334	0.220	0.001
2.740	0.296	0.248	-0.002	2.900	0.020	0.202	-0.001	3.020	0.374	0.207	0.000
2.740	0.336	0.225	0.000	2.900	0.060	0.228	0.000	3.020	0.413	0.196	0.000
2.740	0.375	0.211	0.001	2.900	0.099	0.258	-0.001	3.020	0.452	0.182	0.000
2.740	0.414	0.202	0.001	2.900	0.138	0.270	-0.001	3.020	0.491	0.175	-0.002
2.740	0.454	0.186	0.000	2.900	0.178	0.281	0.000	3.020	0.531	0.166	-0.002
2.740	0.493	0.175	0.000	2.900	0.217	0.291	0.000	3.020	0.570	0.151	-0.002
2.750	0.532	0.167	-0.001	2.900	0.256	0.286	0.001	3.060	0.019	0.196	0.001
2.750	0.572	0.149	-0.001	2.900	0.296	0.252	0.000	3.060	0.059	0.219	0.000
2.780	0.021	0.216	-0.001	2.900	0.335	0.224	0.000	3.060	0.098	0.248	-0.001
2.780	0.060	0.232	-0.001	2.900	0.374	0.210	0.002	3.060	0.137	0.266	-0.001
2.780	0.100	0.263	-0.001	2.900	0.413	0.200	0.001	3.060	0.177	0.273	0.001
2.780	0.139	0.280	-0.001	2.900	0.453	0.186	0.000	3.060	0.216	0.281	0.001
2.780	0.178	0.288	-0.001	2.900	0.492	0.176	0.000	3.060	0.255	0.279	0.002
2.780	0.218	0.296	-0.001	2.900	0.531	0.165	0.000	3.060	0.295	0.253	0.002
2.780	0.257	0.281	0.000	2.900	0.571	0.148	0.000	3.060	0.334	0.224	0.002
2.780	0.296	0.249	-0.001	2.940	0.020	0.204	0.001	3.060	0.373	0.211	0.002
2.780	0.335	0.224	0.000	2.940	0.059	0.226	0.000	3.060	0.413	0.198	0.002
2.780	0.375	0.211	0.001	2.940	0.099	0.255	-0.001	3.060	0.452	0.186	-0.001
2.780	0.414	0.201	0.000	2.940	0.138	0.265	-0.001	3.060	0.491	0.177	-0.002
2.780	0.453	0.188	0.000	2.940	0.177	0.278	0.000	3.060	0.531	0.166	-0.002
2.780	0.493	0.175	0.000	2.940	0.217	0.284	0.000	3.060	0.570	0.149	-0.002
2.780	0.532	0.166	0.000	2.940	0.256	0.277	0.000	3.100	0.019	0.192	0.000
2.780	0.571	0.150	-0.001	2.940	0.295	0.251	0.001	3.100	0.059	0.214	0.002
2.820	0.021	0.204	-0.002	2.940	0.335	0.224	0.000	3.100	0.098	0.242	0.000
2.820	0.060	0.229	-0.002	2.940	0.374	0.209	0.002	3.100	0.137	0.259	0.000
2.820	0.099	0.262	-0.002	2.940	0.413	0.198	0.002	3.100	0.177	0.271	0.002
2.820	0.139	0.276	-0.001	2.940	0.453	0.184	0.001	3.100	0.216	0.280	0.002
2.820	0.178	0.287	-0.001	2.940	0.492	0.175	0.000	3.100	0.255	0.277	0.002
2.820	0.217	0.297	-0.001	2.940	0.531	0.165	0.000	3.100	0.294	0.251	0.001
2.820	0.257	0.289	0.001	2.940	0.571	0.150	0.000	3.100	0.334	0.223	0.002
2.820	0.296	0.249	0.000	2.980	0.020	0.204	0.000	3.100	0.373	0.211	0.002
2.820	0.335	0.223	0.001	2.980	0.059	0.222	-0.001	3.100	0.412	0.199	0.002
2.820	0.375	0.211	0.001	2.980	0.099	0.252	-0.001	3.100	0.452	0.185	0.000
2.820	0.414	0.198	0.000	2.980	0.138	0.265	-0.001	3.100	0.491	0.178	-0.002
2.820	0.453	0.185	0.000	2.980	0.177	0.274	-0.001	3.100	0.530	0.167	-0.002
2.820	0.493	0.175	0.000	2.980	0.216	0.286	0.001	3.100	0.570	0.151	-0.002
2.820	0.532	0.165	-0.001	2.980	0.256	0.282	0.001	3.140	0.019	0.191	0.000
2.820	0.571	0.148	-0.001	2.980	0.295	0.246	0.001	3.140	0.058	0.212	0.003
2.860	0.021	0.203	-0.004	2.980	0.334	0.221	0.001	3.140	0.098	0.238	0.000
2.860	0.060	0.230	-0.001	2.980	0.413	0.197	0.000	3.140	0.137	0.254	0.000
2.860	0.099	0.260	-0.001	2.980	0.452	0.181	0.000	3.140	0.176	0.265	0.002
2.860	0.138	0.275	-0.001	2.980	0.492	0.175	-0.001	3.140	0.216	0.278	0.001
2.860	0.178	0.288	0.000	2.980	0.531	0.165	-0.001	3.140	0.255	0.277	0.004
2.860	0.217	0.296	0.000	2.980	0.570	0.149	-0.001	3.140	0.294	0.245	0.001
2.860	0.256	0.287	0.001	3.020	0.020	0.202	0.000	3.140	0.334	0.219	0.003
2.860	0.296	0.252	0.000	3.020	0.059	0.221	0.000	3.140	0.373	0.208	0.003
2.860	0.335	0.226	0.001	3.020	0.098	0.250	-0.002	3.140	0.412	0.196	0.002
2.860	0.374	0.210	0.002	3.020	0.138	0.265	-0.001	3.140	0.452	0.183	0.001
2.860	0.414	0.201	0.000	3.020	0.177	0.273	0.000	3.140	0.491	0.176	0.000
2.860	0.453	0.186	-0.001	3.020	0.216	0.282	0.001	3.140	0.530	0.166	-0.001
2.860	0.492	0.175	-0.001	3.020	0.256	0.278	0.001	3.140	0.569	0.152	-0.002
2.860	0.532	0.165	-0.001	3.020	0.295	0.253	0.001	3.180	0.019	0.188	0.002

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
5408 S. DICKINSON DRIVE  
CHICAGO, ILL. 60637  
TEL: 773-936-5000  
FAX: 773-936-5001  
WWW: WWW.CHEM.UCHICAGO.EDU

RECEIVED  
JAN 10 1999  
FROM: [illegible]  
TO: [illegible]  
SUBJECT: [illegible]

RECEIVED  
JAN 10 1999  
FROM: [illegible]  
TO: [illegible]  
SUBJECT: [illegible]

3.180	0.058	0.204	0.002	3.290	0.459	0.193	0.003	3.490	0.300	0.212	0.018
3.180	0.097	0.225	0.000	3.290	0.498	0.187	0.001	3.490	0.340	0.246	0.010
3.180	0.176	0.259	0.003	3.290	0.538	0.177	-0.001	3.490	0.379	0.237	0.005
3.180	0.215	0.270	0.003	3.290	0.577	0.160	-0.001	3.490	0.418	0.226	0.004
3.180	0.255	0.264	0.002	3.330	0.026	0.132	0.001	3.490	0.458	0.221	0.003
3.180	0.294	0.243	0.001	3.330	0.065	0.167	0.001	3.490	0.497	0.213	0.002
3.180	0.333	0.219	0.004	3.330	0.104	0.208	-0.002	3.490	0.536	0.201	0.001
3.180	0.373	0.202	0.004	3.330	0.144	0.240	0.000	3.490	0.576	0.182	-0.001
3.180	0.412	0.191	0.002	3.330	0.183	0.263	0.002	3.530	0.300	0.158	0.014
3.180	0.451	0.185	0.001	3.330	0.223	0.272	0.003	3.530	0.339	0.230	0.012
3.180	0.530	0.164	-0.002	3.330	0.262	0.271	0.005	3.530	0.379	0.237	0.007
3.180	0.569	0.156	-0.002	3.330	0.301	0.252	0.005	3.530	0.418	0.230	0.005
3.210	0.027	0.181	0.000	3.330	0.341	0.234	0.004	3.530	0.457	0.224	0.003
3.210	0.066	0.212	0.000	3.330	0.380	0.221	0.004	3.530	0.497	0.217	0.002
3.210	0.105	0.248	-0.002	3.330	0.419	0.207	0.005	3.530	0.536	0.206	0.001
3.210	0.145	0.256	0.000	3.330	0.459	0.196	0.004	3.530	0.576	0.188	0.000
3.210	0.184	0.267	0.001	3.330	0.498	0.186	0.001	3.570	0.300	0.106	0.004
3.210	0.223	0.277	0.001	3.330	0.538	0.180	0.000	3.570	0.339	0.225	0.011
3.210	0.263	0.266	0.002	3.330	0.577	0.165	-0.001	3.570	0.378	0.237	0.007
3.210	0.302	0.242	0.001	3.370	0.104	0.004	-0.001	3.570	0.418	0.231	0.004
3.210	0.341	0.227	0.005	3.370	0.144	0.070	-0.001	3.570	0.457	0.228	0.002
3.210	0.381	0.214	0.003	3.370	0.183	0.226	0.005	3.570	0.496	0.221	0.001
3.210	0.420	0.200	0.004	3.370	0.222	0.261	0.007	3.570	0.536	0.209	0.002
3.210	0.460	0.186	0.001	3.370	0.262	0.273	0.005	3.610	0.299	0.097	-0.002
3.210	0.499	0.178	-0.001	3.370	0.301	0.255	0.004	3.610	0.339	0.226	0.016
3.210	0.538	0.170	-0.001	3.370	0.340	0.237	0.003	3.610	0.378	0.238	0.007
3.210	0.578	0.146	0.000	3.370	0.380	0.226	0.004	3.610	0.417	0.239	0.005
3.250	0.026	0.176	-0.001	3.370	0.419	0.214	0.004	3.610	0.457	0.231	0.003
3.250	0.066	0.206	0.000	3.370	0.459	0.195	0.004	3.610	0.496	0.221	0.002
3.250	0.105	0.246	-0.001	3.370	0.498	0.190	0.002	3.610	0.536	0.212	0.001
3.250	0.144	0.257	-0.001	3.370	0.537	0.186	0.001	3.610	0.575	0.195	0.000
3.250	0.184	0.266	0.001	3.370	0.577	0.170	-0.001	3.650	0.299	0.023	-0.004
3.250	0.223	0.274	0.003	3.410	0.183	0.004	0.001	3.650	0.338	0.221	0.024
3.250	0.262	0.267	0.002	3.410	0.222	0.176	0.006	3.650	0.378	0.241	0.009
3.250	0.302	0.249	0.002	3.410	0.261	0.264	0.013	3.650	0.417	0.241	0.005
3.250	0.341	0.228	0.003	3.410	0.301	0.260	0.008	3.650	0.457	0.233	0.003
3.250	0.381	0.213	0.003	3.410	0.340	0.240	0.004	3.650	0.496	0.224	0.002
3.250	0.420	0.203	0.004	3.410	0.379	0.228	0.005	3.650	0.535	0.212	0.001
3.250	0.459	0.193	0.002	3.410	0.419	0.217	0.004	3.650	0.575	0.192	0.000
3.250	0.499	0.183	0.001	3.410	0.458	0.205	0.003	3.690	0.299	0.175	0.002
3.250	0.538	0.173	-0.001	3.410	0.498	0.199	0.002	3.690	0.338	0.239	0.015
3.250	0.577	0.151	-0.001	3.410	0.537	0.187	0.001	3.690	0.378	0.241	0.011
3.290	0.026	0.153	0.001	3.410	0.576	0.171	-0.001	3.690	0.417	0.241	0.006
3.290	0.065	0.198	0.001	3.450	0.261	0.214	0.012	3.690	0.456	0.236	0.003
3.290	0.105	0.241	-0.001	3.450	0.300	0.247	0.017	3.690	0.496	0.231	0.002
3.290	0.144	0.255	0.000	3.450	0.340	0.242	0.006	3.690	0.535	0.222	0.000
3.290	0.183	0.265	0.003	3.450	0.379	0.231	0.005	3.690	0.574	0.197	0.000
3.290	0.223	0.272	0.003	3.450	0.419	0.222	0.003	3.730	0.299	0.104	0.002
3.290	0.262	0.273	0.005	3.450	0.458	0.213	0.003	3.730	0.338	0.235	0.014
3.290	0.302	0.253	0.004	3.450	0.497	0.205	0.003	3.730	0.377	0.247	0.008
3.290	0.341	0.234	0.003	3.450	0.537	0.196	0.002	3.730	0.417	0.247	0.006
3.290	0.380	0.217	0.003	3.450	0.576	0.179	0.000	3.730	0.456	0.238	0.004
3.290	0.420	0.203	0.004	3.490	0.261	0.138	0.001	3.730	0.495	0.228	0.001





3.730	0.535	0.225	0.001	3.960	0.100	0.165	-0.001	4.080	0.414	0.261	0.001
3.730	0.574	0.203	0.000	3.960	0.139	0.171	-0.002	4.080	0.454	0.249	-0.001
3.770	0.298	0.160	0.005	3.960	0.179	0.172	-0.001	4.080	0.493	0.238	0.000
3.770	0.338	0.251	0.011	3.960	0.218	0.184	0.000	4.080	0.532	0.231	0.000
3.770	0.377	0.258	0.008	3.960	0.257	0.198	0.000	4.080	0.572	0.216	-0.001
3.770	0.416	0.252	0.006	3.960	0.297	0.220	-0.001	4.120	0.020	0.128	0.001
3.770	0.456	0.243	0.004	3.960	0.336	0.265	0.003	4.120	0.060	0.144	0.000
3.770	0.495	0.232	0.003	3.960	0.376	0.275	0.003	4.120	0.099	0.152	-0.001
3.770	0.534	0.227	0.000	3.960	0.415	0.261	0.002	4.120	0.138	0.161	-0.002
3.770	0.574	0.204	0.000	3.960	0.454	0.252	0.000	4.120	0.178	0.161	-0.002
3.810	0.259	0.145	0.000	3.960	0.494	0.242	0.000	4.120	0.217	0.173	-0.001
3.810	0.298	0.211	0.002	3.960	0.533	0.234	-0.001	4.120	0.256	0.191	0.000
3.810	0.337	0.260	0.008	3.960	0.572	0.213	-0.001	4.120	0.296	0.213	-0.001
3.810	0.377	0.261	0.009	4.000	0.021	0.133	0.000	4.120	0.335	0.258	-0.001
3.810	0.416	0.256	0.006	4.000	0.060	0.151	-0.001	4.120	0.374	0.272	0.000
3.810	0.455	0.250	0.003	4.000	0.100	0.159	-0.001	4.120	0.414	0.264	0.001
3.810	0.495	0.236	0.002	4.000	0.139	0.168	-0.002	4.120	0.453	0.254	0.000
3.810	0.534	0.229	0.001	4.000	0.178	0.170	-0.001	4.120	0.493	0.242	-0.001
3.810	0.574	0.206	-0.001	4.000	0.218	0.178	-0.001	4.120	0.532	0.233	-0.002
3.850	0.219	0.044	-0.005	4.000	0.257	0.193	0.000	4.120	0.571	0.219	-0.001
3.850	0.258	0.204	0.001	4.000	0.297	0.222	-0.001	4.160	0.020	0.134	0.000
3.850	0.298	0.226	0.002	4.000	0.336	0.265	0.002	4.160	0.059	0.144	0.000
3.850	0.337	0.269	0.006	4.000	0.375	0.274	0.001	4.160	0.099	0.153	-0.001
3.850	0.376	0.266	0.007	4.000	0.415	0.265	0.002	4.160	0.138	0.160	-0.001
3.850	0.416	0.257	0.004	4.000	0.454	0.253	0.000	4.160	0.177	0.161	-0.002
3.850	0.455	0.249	0.002	4.000	0.493	0.242	-0.001	4.160	0.217	0.172	-0.001
3.850	0.495	0.236	0.001	4.000	0.533	0.233	-0.001	4.160	0.256	0.188	-0.001
3.850	0.534	0.231	0.000	4.000	0.572	0.214	-0.001	4.160	0.295	0.209	-0.002
3.850	0.573	0.211	-0.001	4.040	0.021	0.121	0.000	4.160	0.335	0.260	-0.002
3.890	0.219	0.177	0.001	4.040	0.060	0.146	0.000	4.160	0.374	0.276	0.000
3.890	0.258	0.202	0.001	4.040	0.099	0.156	-0.001	4.160	0.414	0.267	0.001
3.890	0.297	0.221	0.002	4.040	0.139	0.164	-0.002	4.160	0.453	0.254	0.000
3.890	0.337	0.267	0.003	4.040	0.178	0.164	-0.001	4.160	0.492	0.241	-0.001
3.890	0.376	0.274	0.004	4.040	0.218	0.175	-0.001	4.160	0.532	0.233	-0.001
3.890	0.416	0.263	0.003	4.040	0.257	0.195	-0.001	4.160	0.571	0.221	-0.001
3.890	0.455	0.251	0.002	4.040	0.296	0.217	0.000	4.200	0.020	0.137	0.001
3.890	0.494	0.237	0.001	4.040	0.336	0.252	0.001	4.200	0.059	0.145	0.000
3.890	0.534	0.230	0.000	4.040	0.375	0.273	0.002	4.200	0.098	0.154	-0.001
3.890	0.573	0.214	-0.001	4.040	0.414	0.266	0.002	4.200	0.138	0.160	-0.002
3.920	0.100	0.107	-0.001	4.040	0.454	0.253	0.000	4.200	0.177	0.162	-0.002
3.920	0.140	0.136	-0.001	4.040	0.493	0.239	0.000	4.200	0.216	0.172	-0.002
3.920	0.218	0.181	0.000	4.040	0.533	0.227	-0.001	4.200	0.256	0.191	-0.002
3.920	0.258	0.202	0.000	4.040	0.572	0.215	-0.001	4.200	0.295	0.206	-0.002
3.920	0.297	0.224	0.001	4.080	0.020	0.123	0.000	4.200	0.335	0.241	-0.002
3.920	0.337	0.268	0.004	4.080	0.060	0.144	0.000	4.200	0.374	0.272	-0.001
3.920	0.376	0.276	0.004	4.080	0.099	0.153	-0.001	4.200	0.413	0.265	0.000
3.930	0.415	0.264	0.003	4.080	0.139	0.162	-0.002	4.200	0.492	0.242	-0.001
3.930	0.455	0.251	0.001	4.080	0.178	0.161	-0.001	4.200	0.531	0.237	-0.001
3.930	0.494	0.237	0.000	4.080	0.217	0.170	-0.002	4.200	0.571	0.223	-0.001
3.930	0.533	0.231	0.000	4.080	0.257	0.190	-0.001	4.240	0.019	0.140	0.001
3.930	0.573	0.216	-0.001	4.080	0.296	0.217	-0.001	4.240	0.059	0.147	0.000
3.960	0.021	0.139	0.000	4.080	0.335	0.246	0.000	4.240	0.098	0.155	-0.001
3.960	0.061	0.156	-0.001	4.080	0.375	0.271	0.001	4.240	0.137	0.161	-0.002





4.240	0.177	0.166	-0.002	4.360	0.491	0.254	-0.001	4.510	0.223	0.193	-0.001
4.240	0.216	0.179	-0.004	4.360	0.530	0.241	-0.002	4.510	0.263	0.212	-0.002
4.240	0.256	0.194	-0.002	4.360	0.570	0.226	-0.001	4.510	0.302	0.228	-0.003
4.240	0.295	0.209	-0.002	4.400	0.018	0.144	0.000	4.510	0.381	0.277	0.000
4.240	0.334	0.248	-0.003	4.400	0.058	0.148	0.000	4.510	0.420	0.274	-0.001
4.240	0.374	0.274	-0.001	4.400	0.097	0.156	-0.001	4.510	0.459	0.262	0.000
4.240	0.413	0.267	0.000	4.400	0.136	0.163	-0.002	4.510	0.499	0.251	-0.002
4.240	0.452	0.260	0.000	4.400	0.176	0.166	-0.002	4.510	0.538	0.239	-0.001
4.240	0.492	0.247	0.000	4.400	0.215	0.179	-0.003	4.510	0.577	0.211	0.001
4.240	0.531	0.242	0.000	4.400	0.254	0.196	0.000	4.550	0.027	0.147	-0.002
4.240	0.571	0.225	-0.001	4.400	0.294	0.216	-0.001	4.550	0.066	0.156	-0.002
4.280	0.019	0.142	0.000	4.400	0.333	0.254	-0.001	4.550	0.105	0.169	-0.003
4.280	0.058	0.148	0.000	4.400	0.373	0.280	-0.001	4.550	0.145	0.172	-0.004
4.280	0.098	0.156	-0.001	4.400	0.412	0.274	-0.001	4.550	0.184	0.178	-0.005
4.280	0.137	0.162	-0.002	4.400	0.451	0.267	-0.001	4.550	0.223	0.195	-0.002
4.280	0.177	0.168	-0.003	4.400	0.491	0.253	-0.001	4.550	0.262	0.213	-0.003
4.280	0.216	0.183	-0.002	4.400	0.530	0.242	-0.002	4.550	0.302	0.227	-0.004
4.280	0.255	0.199	-0.002	4.400	0.569	0.226	-0.001	4.550	0.341	0.264	-0.003
4.280	0.295	0.216	-0.003	4.440	0.018	0.141	0.000	4.550	0.380	0.282	-0.001
4.280	0.334	0.269	-0.003	4.440	0.057	0.147	-0.001	4.550	0.420	0.275	0.000
4.280	0.373	0.286	-0.001	4.440	0.097	0.154	-0.002	4.550	0.459	0.265	0.000
4.280	0.413	0.277	0.001	4.440	0.136	0.160	0.000	4.550	0.498	0.253	-0.002
4.280	0.452	0.269	0.001	4.440	0.175	0.161	0.000	4.550	0.538	0.241	-0.002
4.280	0.492	0.255	0.000	4.440	0.215	0.182	-0.001	4.550	0.577	0.211	0.000
4.280	0.531	0.244	0.000	4.440	0.254	0.190	0.000	4.590	0.026	0.147	-0.002
4.280	0.570	0.225	-0.001	4.440	0.294	0.220	-0.002	4.590	0.066	0.157	-0.002
4.320	0.019	0.143	0.000	4.440	0.333	0.264	-0.005	4.590	0.105	0.170	-0.003
4.320	0.058	0.148	0.000	4.440	0.372	0.261	-0.003	4.590	0.144	0.173	-0.004
4.320	0.098	0.157	-0.001	4.440	0.412	0.265	-0.003	4.590	0.184	0.179	-0.005
4.320	0.137	0.165	-0.002	4.440	0.451	0.263	-0.002	4.590	0.223	0.197	-0.002
4.320	0.176	0.167	-0.003	4.440	0.490	0.251	-0.005	4.590	0.262	0.213	-0.003
4.320	0.216	0.182	-0.002	4.440	0.530	0.238	-0.004	4.590	0.302	0.225	-0.005
4.320	0.255	0.197	-0.001	4.440	0.569	0.228	0.001	4.590	0.341	0.264	-0.005
4.320	0.294	0.221	-0.003	4.470	0.027	0.145	-0.002	4.590	0.380	0.284	-0.002
4.320	0.334	0.267	-0.004	4.470	0.066	0.154	-0.003	4.590	0.420	0.273	-0.001
4.320	0.373	0.290	-0.001	4.470	0.106	0.166	-0.003	4.590	0.459	0.264	0.001
4.320	0.412	0.284	0.000	4.470	0.145	0.167	-0.004	4.590	0.498	0.253	-0.002
4.320	0.452	0.273	-0.001	4.470	0.184	0.175	-0.005	4.590	0.538	0.243	-0.003
4.320	0.491	0.254	-0.002	4.470	0.224	0.193	-0.002	4.590	0.577	0.218	-0.003
4.320	0.531	0.244	-0.002	4.470	0.263	0.211	-0.003	4.630	0.026	0.146	-0.001
4.320	0.570	0.226	-0.002	4.470	0.302	0.226	-0.005	4.630	0.065	0.158	-0.002
4.360	0.018	0.144	0.000	4.470	0.342	0.262	-0.001	4.630	0.105	0.172	-0.003
4.360	0.058	0.149	-0.001	4.470	0.381	0.279	0.000	4.630	0.144	0.174	-0.003
4.360	0.097	0.156	-0.001	4.470	0.420	0.269	-0.003	4.630	0.183	0.181	-0.003
4.360	0.137	0.163	-0.002	4.470	0.460	0.260	-0.001	4.630	0.223	0.198	-0.002
4.360	0.176	0.167	-0.002	4.470	0.499	0.249	-0.003	4.630	0.262	0.212	-0.004
4.360	0.215	0.182	-0.002	4.470	0.538	0.238	-0.001	4.630	0.301	0.231	-0.004
4.360	0.255	0.194	-0.001	4.470	0.577	0.205	0.000	4.630	0.341	0.261	-0.003
4.360	0.294	0.219	-0.002	4.510	0.027	0.146	-0.001	4.630	0.380	0.287	-0.002
4.360	0.333	0.259	-0.002	4.510	0.066	0.154	-0.002	4.630	0.419	0.278	-0.001
4.360	0.373	0.282	0.000	4.510	0.105	0.166	-0.003	4.630	0.459	0.269	0.000
4.360	0.412	0.279	0.000	4.510	0.145	0.170	-0.003	4.630	0.498	0.257	-0.002
4.360	0.452	0.270	-0.001	4.510	0.184	0.176	-0.005	4.630	0.537	0.246	-0.004





4.630	0.577	0.220	-0.002	4.790	0.301	0.241	-0.005	4.940	0.064	0.169	-0.002
4.670	0.026	0.148	-0.001	4.790	0.340	0.278	-0.004	4.940	0.103	0.182	-0.001
4.670	0.065	0.159	-0.002	4.790	0.379	0.292	-0.001	4.940	0.143	0.186	-0.001
4.670	0.105	0.174	-0.002	4.790	0.419	0.288	0.000	4.940	0.182	0.195	-0.001
4.670	0.144	0.176	-0.003	4.790	0.458	0.271	0.001	4.940	0.221	0.210	-0.003
4.670	0.183	0.184	-0.005	4.790	0.497	0.259	-0.002	4.940	0.261	0.225	-0.005
4.670	0.223	0.199	-0.002	4.790	0.537	0.256	-0.001	4.940	0.300	0.250	-0.005
4.670	0.262	0.214	-0.003	4.790	0.576	0.230	-0.002	4.940	0.339	0.284	-0.002
4.670	0.301	0.236	-0.005	4.820	0.576	0.232	-0.001	4.940	0.379	0.292	-0.003
4.670	0.341	0.273	-0.004	4.830	0.025	0.158	-0.001	4.940	0.418	0.284	-0.002
4.670	0.380	0.288	-0.002	4.830	0.064	0.166	-0.002	4.940	0.457	0.274	-0.001
4.670	0.419	0.282	0.000	4.830	0.104	0.181	-0.002	4.940	0.496	0.267	0.000
4.670	0.459	0.272	0.000	4.830	0.143	0.184	-0.002	4.940	0.536	0.255	-0.003
4.670	0.498	0.259	0.000	4.830	0.182	0.192	-0.003	4.940	0.575	0.228	-0.002
4.670	0.537	0.249	-0.003	4.830	0.222	0.207	-0.001	4.950	0.025	0.161	-0.001
4.670	0.577	0.220	-0.002	4.830	0.261	0.222	-0.003	4.980	0.024	0.164	-0.001
4.710	0.026	0.150	0.000	4.830	0.300	0.246	-0.004	4.980	0.064	0.171	-0.002
4.710	0.065	0.161	-0.001	4.830	0.340	0.274	-0.002	4.980	0.103	0.183	-0.001
4.710	0.104	0.175	-0.002	4.830	0.379	0.293	-0.002	4.980	0.142	0.188	-0.001
4.710	0.144	0.179	-0.003	4.830	0.418	0.286	0.000	4.980	0.182	0.196	0.000
4.710	0.183	0.185	-0.005	4.830	0.458	0.277	0.000	4.980	0.221	0.212	-0.003
4.710	0.222	0.202	-0.002	4.830	0.497	0.270	0.001	4.980	0.260	0.226	-0.005
4.710	0.262	0.218	-0.003	4.830	0.536	0.257	-0.002	4.980	0.300	0.250	-0.004
4.710	0.301	0.240	-0.005	4.860	0.418	0.284	-0.002	4.980	0.339	0.282	-0.003
4.710	0.340	0.276	-0.004	4.860	0.458	0.276	0.000	4.980	0.378	0.295	-0.003
4.710	0.380	0.290	-0.003	4.860	0.497	0.269	0.001	4.980	0.418	0.285	-0.003
4.710	0.419	0.284	0.000	4.860	0.536	0.258	-0.002	4.980	0.457	0.277	-0.001
4.710	0.458	0.273	0.001	4.860	0.576	0.232	0.000	4.980	0.496	0.268	0.000
4.710	0.498	0.264	0.001	4.870	0.025	0.159	-0.002	4.980	0.536	0.254	-0.002
4.710	0.537	0.250	-0.003	4.870	0.064	0.167	-0.002	4.980	0.575	0.229	-0.002
4.710	0.576	0.225	-0.003	4.870	0.104	0.182	-0.002	5.020	0.024	0.165	-0.001
4.750	0.026	0.153	-0.001	4.870	0.143	0.186	-0.001	5.020	0.064	0.172	-0.002
4.750	0.065	0.161	-0.002	4.870	0.182	0.194	-0.003	5.020	0.103	0.185	-0.001
4.750	0.104	0.178	-0.003	4.870	0.222	0.208	-0.003	5.020	0.142	0.191	-0.001
4.750	0.144	0.182	-0.004	4.870	0.261	0.224	-0.003	5.020	0.181	0.195	-0.001
4.750	0.183	0.191	-0.002	4.870	0.300	0.249	-0.004	5.020	0.221	0.211	-0.002
4.750	0.222	0.204	-0.002	4.870	0.340	0.282	-0.002	5.020	0.260	0.230	-0.004
4.750	0.262	0.219	-0.002	4.870	0.379	0.294	-0.002	5.020	0.299	0.251	-0.004
4.750	0.301	0.242	-0.003	4.900	0.261	0.226	-0.004	5.020	0.339	0.284	-0.002
4.750	0.340	0.278	-0.001	4.900	0.300	0.249	-0.005	5.020	0.378	0.294	-0.002
4.750	0.379	0.290	-0.002	4.900	0.339	0.283	0.000	5.020	0.417	0.287	-0.002
4.750	0.419	0.284	-0.001	4.900	0.379	0.295	-0.003	5.020	0.457	0.280	0.000
4.750	0.458	0.271	0.000	4.900	0.418	0.288	-0.002	5.020	0.496	0.266	-0.001
4.750	0.497	0.264	-0.001	4.900	0.457	0.271	0.001	5.020	0.535	0.254	-0.002
4.750	0.537	0.253	-0.001	4.900	0.497	0.265	0.000	5.020	0.575	0.229	-0.002
4.750	0.576	0.227	-0.003	4.900	0.536	0.255	-0.002	5.060	0.024	0.167	-0.001
4.790	0.025	0.155	-0.001	4.900	0.575	0.230	-0.001	5.060	0.063	0.175	-0.001
4.790	0.065	0.164	-0.002	4.910	0.025	0.161	0.000	5.060	0.103	0.185	-0.001
4.790	0.104	0.176	-0.002	4.910	0.064	0.168	-0.002	5.060	0.142	0.190	-0.001
4.790	0.143	0.182	-0.003	4.910	0.103	0.181	-0.001	5.060	0.181	0.198	-0.002
4.790	0.183	0.191	-0.003	4.910	0.143	0.186	-0.001	5.060	0.221	0.211	-0.002
4.790	0.222	0.203	-0.002	4.910	0.182	0.195	-0.001	5.060	0.260	0.227	-0.004
4.790	0.261	0.217	-0.003	4.910	0.221	0.209	-0.003	5.060	0.299	0.249	-0.004





5.060	0.339	0.277	-0.001	5.220	0.102	0.194	-0.001	5.340	0.416	0.285	-0.002
5.060	0.378	0.294	-0.001	5.220	0.141	0.196	-0.001	5.340	0.455	0.279	-0.002
5.060	0.417	0.289	-0.002	5.220	0.181	0.205	-0.001	5.340	0.495	0.268	-0.002
5.060	0.457	0.279	-0.001	5.220	0.220	0.219	-0.003	5.340	0.534	0.254	-0.003
5.060	0.496	0.269	0.000	5.220	0.259	0.229	-0.004	5.340	0.573	0.230	-0.004
5.060	0.535	0.257	-0.002	5.220	0.298	0.252	-0.003	5.380	0.022	0.174	-0.001
5.060	0.575	0.232	-0.003	5.220	0.338	0.282	-0.002	5.380	0.062	0.183	-0.001
5.100	0.024	0.169	0.000	5.220	0.377	0.292	-0.002	5.380	0.101	0.197	0.000
5.100	0.063	0.176	-0.001	5.220	0.416	0.287	-0.002	5.380	0.140	0.200	-0.001
5.100	0.102	0.188	-0.001	5.220	0.456	0.280	0.000	5.380	0.180	0.207	-0.002
5.100	0.142	0.194	-0.001	5.220	0.495	0.272	-0.001	5.380	0.219	0.219	-0.003
5.100	0.181	0.200	-0.001	5.220	0.534	0.260	-0.003	5.380	0.258	0.230	-0.003
5.100	0.220	0.213	-0.001	5.220	0.574	0.234	-0.003	5.380	0.298	0.254	-0.003
5.100	0.260	0.229	-0.002	5.260	0.023	0.162	-0.002	5.380	0.337	0.280	-0.001
5.100	0.299	0.251	-0.003	5.260	0.062	0.180	-0.001	5.380	0.376	0.289	-0.001
5.100	0.338	0.277	-0.001	5.260	0.102	0.198	0.000	5.380	0.416	0.285	0.000
5.100	0.378	0.292	-0.001	5.260	0.141	0.201	-0.001	5.380	0.455	0.276	0.000
5.100	0.417	0.292	-0.001	5.260	0.180	0.207	-0.001	5.380	0.494	0.264	-0.002
5.100	0.456	0.281	-0.002	5.260	0.220	0.217	-0.003	5.380	0.534	0.254	-0.003
5.100	0.496	0.266	-0.002	5.260	0.259	0.229	-0.004	5.380	0.573	0.231	-0.003
5.100	0.535	0.258	-0.001	5.260	0.298	0.255	-0.003	5.420	0.022	0.174	0.000
5.100	0.574	0.236	-0.003	5.260	0.338	0.282	-0.002	5.420	0.062	0.184	-0.001
5.140	0.024	0.171	-0.001	5.260	0.377	0.291	-0.002	5.420	0.101	0.195	-0.001
5.140	0.063	0.178	0.000	5.260	0.416	0.288	-0.001	5.420	0.140	0.197	-0.001
5.140	0.102	0.192	0.000	5.260	0.456	0.279	-0.002	5.420	0.180	0.205	-0.002
5.140	0.142	0.195	-0.001	5.260	0.495	0.270	-0.001	5.420	0.219	0.219	-0.003
5.140	0.181	0.200	-0.001	5.260	0.534	0.258	-0.003	5.420	0.258	0.234	-0.005
5.140	0.220	0.215	-0.002	5.260	0.574	0.232	-0.003	5.420	0.298	0.255	-0.004
5.140	0.260	0.230	-0.002	5.300	0.023	0.172	-0.002	5.420	0.337	0.279	-0.002
5.140	0.299	0.251	-0.005	5.300	0.062	0.183	-0.002	5.420	0.376	0.287	-0.003
5.140	0.338	0.278	-0.002	5.300	0.101	0.195	-0.001	5.420	0.416	0.280	-0.001
5.140	0.378	0.293	-0.002	5.300	0.141	0.199	-0.001	5.420	0.455	0.272	-0.001
5.140	0.417	0.292	-0.001	5.300	0.180	0.206	-0.002	5.420	0.494	0.262	0.000
5.140	0.456	0.280	-0.001	5.300	0.219	0.217	-0.003	5.420	0.533	0.246	-0.003
5.140	0.496	0.270	-0.001	5.300	0.259	0.231	-0.004	5.420	0.573	0.224	-0.002
5.140	0.535	0.259	-0.001	5.300	0.298	0.256	-0.004	5.460	0.022	0.177	0.000
5.140	0.574	0.237	-0.002	5.300	0.337	0.282	-0.003	5.460	0.061	0.183	-0.001
5.180	0.023	0.174	0.000	5.300	0.377	0.293	-0.003	5.460	0.101	0.195	-0.001
5.180	0.102	0.192	-0.001	5.300	0.416	0.288	-0.001	5.460	0.140	0.199	-0.001
5.180	0.141	0.197	-0.001	5.300	0.455	0.280	-0.001	5.460	0.179	0.206	-0.002
5.180	0.181	0.204	-0.001	5.300	0.495	0.270	-0.001	5.460	0.219	0.217	-0.004
5.180	0.220	0.218	-0.002	5.300	0.534	0.258	-0.002	5.460	0.258	0.233	-0.004
5.180	0.259	0.233	-0.004	5.300	0.573	0.234	-0.003	5.460	0.297	0.257	-0.004
5.180	0.299	0.252	-0.003	5.340	0.023	0.174	-0.001	5.460	0.337	0.279	-0.003
5.180	0.338	0.281	-0.002	5.340	0.062	0.182	-0.001	5.460	0.376	0.284	-0.002
5.180	0.377	0.294	-0.003	5.340	0.101	0.194	-0.001	5.460	0.415	0.277	-0.002
5.180	0.417	0.291	-0.004	5.340	0.141	0.198	-0.001	5.460	0.455	0.269	-0.002
5.180	0.456	0.280	0.000	5.340	0.180	0.208	-0.002	5.460	0.494	0.259	-0.002
5.180	0.495	0.271	0.000	5.340	0.219	0.216	-0.004	5.460	0.533	0.246	-0.004
5.180	0.535	0.260	0.000	5.340	0.259	0.229	-0.003	5.460	0.573	0.225	-0.002
5.180	0.574	0.234	-0.003	5.340	0.298	0.258	-0.004	5.500	0.022	0.177	0.000
5.220	0.023	0.169	-0.002	5.340	0.337	0.280	-0.002	5.500	0.061	0.184	-0.001
5.220	0.063	0.181	0.000	5.340	0.377	0.289	-0.001	5.500	0.101	0.198	0.000





5.500	0.140	0.201	0.000	5.620	0.454	0.257	-0.004	5.760	0.379	0.269	-0.009
5.500	0.179	0.208	-0.002	5.620	0.493	0.247	-0.004	5.760	0.418	0.173	-0.006
5.500	0.218	0.218	-0.003	5.620	0.533	0.233	-0.004	5.760	0.457	0.127	-0.005
5.500	0.258	0.229	-0.005	5.620	0.572	0.212	-0.003	5.800	0.025	0.206	0.001
5.500	0.297	0.254	-0.005	5.660	0.021	0.188	0.000	5.800	0.064	0.216	-0.001
5.500	0.336	0.275	-0.004	5.660	0.060	0.194	0.000	5.800	0.103	0.225	-0.003
5.500	0.376	0.286	-0.004	5.660	0.100	0.205	-0.001	5.800	0.143	0.228	-0.006
5.500	0.415	0.276	-0.002	5.660	0.139	0.207	-0.003	5.800	0.182	0.230	-0.008
5.500	0.454	0.266	-0.001	5.660	0.178	0.216	-0.005	5.800	0.221	0.245	-0.009
5.500	0.494	0.256	-0.002	5.660	0.218	0.222	-0.006	5.800	0.261	0.260	-0.008
5.500	0.533	0.242	-0.003	5.660	0.257	0.231	-0.007	5.800	0.300	0.276	-0.009
5.500	0.572	0.220	-0.003	5.660	0.296	0.254	-0.006	5.800	0.339	0.275	-0.014
5.540	0.022	0.181	-0.001	5.660	0.336	0.274	-0.007	5.800	0.379	0.265	-0.017
5.540	0.061	0.188	0.000	5.660	0.375	0.271	-0.007	5.840	0.025	0.210	0.000
5.540	0.100	0.200	0.000	5.660	0.414	0.264	-0.006	5.840	0.064	0.220	-0.002
5.540	0.140	0.201	-0.001	5.660	0.454	0.258	-0.005	5.840	0.103	0.232	-0.004
5.540	0.179	0.208	-0.003	5.660	0.493	0.245	-0.005	5.840	0.143	0.235	-0.006
5.540	0.218	0.218	-0.003	5.660	0.532	0.231	-0.003	5.840	0.182	0.239	-0.008
5.540	0.258	0.229	-0.005	5.660	0.572	0.208	-0.002	5.840	0.221	0.253	-0.008
5.540	0.297	0.254	-0.004	5.700	0.021	0.190	-0.001	5.840	0.261	0.272	-0.010
5.540	0.336	0.279	-0.004	5.700	0.060	0.197	-0.002	5.840	0.300	0.281	-0.012
5.540	0.376	0.282	-0.004	5.700	0.100	0.208	-0.002	5.840	0.339	0.266	-0.008
5.540	0.415	0.273	-0.003	5.700	0.139	0.209	-0.003	5.880	0.025	0.216	0.000
5.540	0.454	0.265	-0.002	5.700	0.178	0.218	-0.005	5.880	0.064	0.227	-0.001
5.540	0.494	0.254	-0.003	5.700	0.218	0.224	-0.006	5.880	0.103	0.236	-0.005
5.540	0.533	0.238	-0.003	5.700	0.257	0.230	-0.006	5.880	0.143	0.241	-0.008
5.540	0.572	0.219	-0.002	5.700	0.296	0.262	-0.006	5.880	0.182	0.245	-0.008
5.580	0.021	0.181	-0.001	5.700	0.335	0.273	-0.008	5.880	0.221	0.258	-0.009
5.580	0.061	0.189	0.000	5.700	0.375	0.272	-0.007	5.880	0.261	0.276	-0.011
5.580	0.100	0.202	-0.001	5.700	0.414	0.264	-0.007	5.880	0.300	0.282	-0.028
5.580	0.139	0.204	-0.002	5.700	0.453	0.253	-0.005	5.920	0.025	0.226	0.000
5.580	0.179	0.210	-0.003	5.700	0.493	0.242	-0.004	5.920	0.064	0.238	-0.001
5.580	0.218	0.219	-0.004	5.700	0.532	0.221	-0.005	5.920	0.103	0.249	-0.003
5.580	0.257	0.228	-0.006	5.700	0.571	0.168	-0.002	5.920	0.143	0.252	-0.006
5.580	0.297	0.257	-0.006	5.740	0.021	0.196	-0.001	5.920	0.182	0.257	-0.005
5.580	0.336	0.274	-0.005	5.740	0.060	0.203	-0.002	5.920	0.221	0.270	-0.008
5.580	0.375	0.275	-0.005	5.740	0.099	0.206	-0.003	5.920	0.261	0.276	-0.013
5.580	0.415	0.265	-0.004	5.740	0.139	0.209	-0.005	5.920	0.300	0.248	-0.045
5.580	0.454	0.256	-0.004	5.740	0.178	0.217	-0.009	5.960	0.025	0.234	-0.001
5.580	0.493	0.249	-0.004	5.740	0.217	0.220	-0.009	5.960	0.064	0.247	-0.003
5.580	0.533	0.239	-0.004	5.740	0.257	0.237	-0.012	5.960	0.103	0.257	-0.003
5.580	0.572	0.217	-0.003	5.740	0.296	0.265	-0.010	5.960	0.143	0.257	-0.005
5.620	0.021	0.186	0.000	5.740	0.335	0.279	-0.011	5.960	0.182	0.258	-0.006
5.620	0.061	0.193	0.000	5.740	0.375	0.278	-0.015	5.960	0.221	0.273	-0.009
5.620	0.100	0.204	-0.001	5.760	0.025	0.197	0.001	5.960	0.261	0.278	-0.013
5.620	0.139	0.205	-0.002	5.760	0.064	0.211	-0.001	5.960	0.300	0.270	-0.015
5.620	0.179	0.211	-0.004	5.760	0.103	0.223	-0.003	6.000	0.025	0.236	-0.002
5.620	0.218	0.221	-0.005	5.760	0.143	0.224	-0.006	6.000	0.064	0.255	-0.002
5.620	0.257	0.226	-0.005	5.760	0.182	0.230	-0.008	6.000	0.103	0.260	-0.002
5.620	0.297	0.254	-0.007	5.760	0.221	0.240	-0.009	6.000	0.143	0.266	-0.005
5.620	0.336	0.271	-0.006	5.760	0.261	0.243	-0.007	6.000	0.182	0.272	-0.008
5.620	0.375	0.273	-0.006	5.760	0.300	0.269	-0.006	6.000	0.221	0.278	-0.011
5.620	0.415	0.267	-0.005	5.760	0.339	0.279	-0.007	6.000	0.261	0.276	-0.017





6.000	0.300	0.290	-0.014	6.270	0.182	0.306	-0.005	6.390	0.575	0.165	-0.002
6.040	0.025	0.245	-0.002	6.270	0.221	0.321	-0.007	6.430	0.025	0.273	0.001
6.040	0.064	0.262	-0.002	6.270	0.261	0.329	-0.005	6.430	0.064	0.289	0.001
6.040	0.103	0.279	-0.002	6.270	0.300	0.261	-0.003	6.430	0.103	0.299	-0.002
6.040	0.143	0.281	-0.004	6.270	0.339	0.233	-0.002	6.430	0.143	0.303	-0.002
6.040	0.182	0.287	-0.007	6.270	0.379	0.209	-0.002	6.430	0.182	0.306	-0.003
6.040	0.221	0.294	-0.012	6.270	0.418	0.175	-0.001	6.430	0.221	0.317	-0.004
6.040	0.261	0.279	-0.026	6.280	0.025	0.270	0.000	6.430	0.261	0.317	-0.003
6.040	0.300	0.237	-0.010	6.280	0.064	0.283	0.000	6.430	0.300	0.269	0.000
6.080	0.025	0.253	0.000	6.280	0.103	0.297	-0.002	6.430	0.339	0.240	-0.001
6.080	0.064	0.271	0.000	6.310	0.025	0.268	0.000	6.430	0.379	0.217	-0.001
6.080	0.103	0.276	-0.001	6.310	0.064	0.285	0.001	6.430	0.418	0.200	0.001
6.080	0.143	0.283	-0.005	6.310	0.103	0.298	-0.001	6.430	0.457	0.188	-0.001
6.080	0.182	0.289	-0.006	6.310	0.143	0.303	-0.004	6.430	0.497	0.181	-0.002
6.080	0.221	0.294	-0.011	6.310	0.182	0.308	-0.005	6.430	0.536	0.182	-0.002
6.080	0.261	0.280	-0.020	6.310	0.221	0.315	-0.007	6.430	0.575	0.161	-0.002
6.080	0.300	0.215	-0.020	6.310	0.261	0.315	-0.006	6.470	0.025	0.263	0.002
6.120	0.025	0.253	0.000	6.310	0.300	0.261	-0.001	6.470	0.064	0.283	0.001
6.120	0.064	0.269	-0.001	6.310	0.339	0.230	-0.002	6.470	0.103	0.295	-0.002
6.120	0.103	0.273	-0.002	6.310	0.379	0.209	-0.001	6.470	0.143	0.299	-0.002
6.120	0.143	0.281	-0.005	6.310	0.418	0.205	-0.002	6.470	0.182	0.311	-0.005
6.120	0.182	0.288	-0.008	6.310	0.457	0.195	-0.002	6.470	0.221	0.322	-0.005
6.120	0.221	0.298	-0.012	6.310	0.497	0.175	-0.004	6.470	0.261	0.318	-0.003
6.120	0.261	0.290	-0.022	6.310	0.536	0.159	-0.005	6.470	0.300	0.267	0.000
6.120	0.300	0.091	-0.011	6.350	0.025	0.277	0.001	6.470	0.339	0.241	-0.001
6.160	0.025	0.255	-0.001	6.350	0.064	0.288	0.000	6.470	0.379	0.215	0.000
6.160	0.064	0.275	0.000	6.350	0.103	0.295	-0.002	6.470	0.418	0.204	0.001
6.160	0.103	0.280	-0.002	6.350	0.143	0.299	-0.003	6.470	0.457	0.186	-0.001
6.160	0.143	0.282	-0.004	6.350	0.182	0.307	-0.002	6.470	0.497	0.180	-0.002
6.160	0.182	0.292	-0.008	6.350	0.221	0.315	-0.005	6.470	0.536	0.176	-0.002
6.160	0.221	0.289	-0.016	6.350	0.261	0.310	-0.004	6.470	0.575	0.157	-0.001
6.160	0.261	0.301	-0.014	6.350	0.300	0.264	-0.001	6.510	0.025	0.265	0.002
6.160	0.300	0.181	-0.013	6.350	0.339	0.225	-0.002	6.510	0.064	0.283	0.001
6.200	0.025	0.259	0.000	6.350	0.379	0.213	-0.001	6.510	0.103	0.296	-0.001
6.200	0.064	0.281	0.000	6.350	0.418	0.207	-0.001	6.510	0.143	0.300	-0.002
6.200	0.103	0.291	-0.002	6.350	0.457	0.195	-0.001	6.510	0.182	0.307	-0.002
6.200	0.143	0.294	-0.005	6.350	0.497	0.182	-0.003	6.510	0.221	0.325	-0.001
6.200	0.182	0.291	-0.008	6.350	0.536	0.178	-0.003	6.510	0.261	0.313	-0.002
6.200	0.221	0.311	-0.011	6.350	0.575	0.162	-0.002	6.510	0.300	0.261	0.000
6.200	0.261	0.308	-0.013	6.390	0.025	0.274	0.001	6.510	0.339	0.233	-0.001
6.200	0.300	0.245	-0.011	6.390	0.064	0.285	0.000	6.510	0.379	0.211	0.001
6.200	0.339	0.156	-0.010	6.390	0.103	0.296	-0.002	6.510	0.418	0.204	0.001
6.230	0.300	0.266	-0.004	6.390	0.143	0.305	-0.003	6.510	0.457	0.186	-0.001
6.230	0.339	0.220	-0.006	6.390	0.182	0.312	-0.003	6.510	0.497	0.179	-0.001
6.230	0.379	0.167	-0.005	6.390	0.221	0.318	-0.005	6.510	0.536	0.172	-0.001
6.240	0.025	0.267	0.000	6.390	0.261	0.314	-0.004	6.510	0.575	0.155	0.000
6.240	0.064	0.281	-0.001	6.390	0.300	0.269	0.000	6.550	0.025	0.261	0.001
6.240	0.103	0.295	-0.001	6.390	0.339	0.230	-0.002	6.550	0.064	0.282	0.000
6.240	0.143	0.295	-0.005	6.390	0.379	0.212	-0.001	6.550	0.103	0.301	0.000
6.240	0.182	0.300	-0.009	6.390	0.418	0.203	0.000	6.550	0.143	0.304	-0.002
6.240	0.221	0.299	-0.024	6.390	0.457	0.192	0.000	6.550	0.182	0.308	-0.002
6.240	0.261	0.331	-0.007	6.390	0.497	0.181	-0.002	6.550	0.221	0.316	-0.003
6.270	0.143	0.299	-0.003	6.390	0.536	0.180	-0.002	6.550	0.261	0.319	-0.002





6.550	0.300	0.265	0.001	6.710	0.025	0.265	0.002	6.820	0.457	0.186	-0.001
6.550	0.339	0.235	-0.001	6.710	0.064	0.280	0.001	6.820	0.497	0.176	-0.001
6.550	0.379	0.207	0.000	6.710	0.103	0.295	0.000	6.820	0.536	0.171	-0.001
6.550	0.418	0.199	0.000	6.710	0.143	0.302	-0.001	6.820	0.575	0.157	0.000
6.550	0.457	0.187	0.000	6.710	0.182	0.313	-0.001	6.830	0.025	0.264	0.001
6.550	0.497	0.177	-0.002	6.710	0.221	0.317	-0.002	6.830	0.064	0.276	0.001
6.550	0.536	0.172	-0.002	6.710	0.261	0.271	-0.002	6.860	0.025	0.268	0.000
6.550	0.575	0.156	0.000	6.710	0.300	0.249	0.001	6.860	0.064	0.282	0.001
6.590	0.025	0.272	0.000	6.710	0.339	0.232	0.001	6.860	0.103	0.299	0.001
6.590	0.064	0.283	0.000	6.710	0.379	0.214	0.001	6.860	0.143	0.304	0.000
6.590	0.103	0.297	-0.001	6.710	0.418	0.203	-0.001	6.860	0.182	0.307	-0.001
6.590	0.143	0.305	-0.002	6.710	0.457	0.183	-0.001	6.860	0.221	0.313	-0.002
6.590	0.182	0.311	-0.001	6.710	0.497	0.177	0.001	6.860	0.261	0.320	0.003
6.590	0.221	0.317	-0.001	6.710	0.536	0.175	-0.002	6.860	0.300	0.267	0.002
6.590	0.261	0.320	0.000	6.740	0.418	0.201	0.001	6.860	0.339	0.227	0.001
6.590	0.300	0.279	0.002	6.740	0.457	0.186	0.001	6.860	0.379	0.212	0.001
6.590	0.339	0.239	-0.001	6.740	0.497	0.178	-0.001	6.860	0.418	0.200	0.001
6.590	0.379	0.209	0.000	6.740	0.536	0.172	-0.003	6.860	0.457	0.183	-0.001
6.590	0.418	0.199	0.001	6.740	0.575	0.155	-0.001	6.860	0.497	0.176	-0.002
6.590	0.457	0.193	0.001	6.750	0.025	0.267	0.001	6.860	0.536	0.172	-0.001
6.590	0.497	0.182	0.000	6.750	0.064	0.281	0.002	6.860	0.575	0.156	0.000
6.590	0.536	0.172	-0.002	6.750	0.103	0.297	0.000	6.900	0.025	0.266	0.002
6.590	0.575	0.155	0.000	6.750	0.143	0.299	-0.001	6.900	0.064	0.281	0.003
6.630	0.025	0.273	0.001	6.750	0.182	0.305	-0.002	6.900	0.103	0.302	0.001
6.630	0.064	0.286	0.001	6.750	0.221	0.312	-0.002	6.900	0.143	0.304	0.001
6.630	0.103	0.295	0.000	6.750	0.261	0.292	-0.001	6.900	0.182	0.308	0.000
6.630	0.143	0.304	0.000	6.750	0.300	0.259	0.003	6.900	0.221	0.317	-0.002
6.630	0.182	0.313	-0.002	6.750	0.339	0.232	0.001	6.900	0.261	0.308	0.000
6.630	0.221	0.316	-0.002	6.750	0.379	0.208	0.002	6.900	0.300	0.251	0.003
6.630	0.261	0.319	0.000	6.780	0.261	0.310	0.001	6.900	0.339	0.230	0.001
6.630	0.300	0.270	0.003	6.780	0.300	0.261	0.003	6.900	0.379	0.213	0.000
6.630	0.339	0.242	0.002	6.780	0.339	0.229	0.002	6.900	0.418	0.203	0.001
6.630	0.379	0.212	0.000	6.780	0.379	0.208	0.002	6.900	0.457	0.182	0.000
6.630	0.418	0.200	0.001	6.780	0.418	0.199	0.001	6.900	0.497	0.174	-0.001
6.630	0.457	0.192	0.000	6.780	0.457	0.185	0.001	6.900	0.536	0.169	-0.001
6.630	0.497	0.184	-0.001	6.780	0.497	0.177	-0.002	6.900	0.575	0.157	0.000
6.630	0.536	0.173	-0.001	6.780	0.536	0.170	-0.001	6.940	0.025	0.274	0.003
6.630	0.575	0.154	-0.001	6.780	0.575	0.153	0.000	6.940	0.064	0.286	0.004
6.670	0.025	0.267	0.001	6.790	0.025	0.266	0.001	6.940	0.103	0.299	0.001
6.670	0.064	0.282	0.001	6.790	0.064	0.279	0.002	6.940	0.143	0.303	0.001
6.670	0.103	0.301	-0.001	6.790	0.103	0.297	-0.001	6.940	0.182	0.309	-0.001
6.670	0.143	0.305	-0.002	6.790	0.143	0.301	-0.001	6.940	0.221	0.314	0.000
6.670	0.182	0.316	-0.003	6.790	0.182	0.307	-0.003	6.940	0.261	0.316	-0.001
6.670	0.221	0.322	-0.002	6.790	0.221	0.308	-0.002	6.940	0.300	0.258	0.001
6.670	0.261	0.321	0.000	6.820	0.103	0.297	0.001	6.940	0.339	0.231	0.001
6.670	0.300	0.236	0.002	6.820	0.143	0.303	0.000	6.940	0.379	0.214	0.001
6.670	0.339	0.231	0.000	6.820	0.182	0.302	-0.001	6.940	0.418	0.202	0.001
6.670	0.418	0.200	0.001	6.820	0.221	0.299	-0.001	6.940	0.457	0.181	0.000
6.670	0.457	0.187	0.000	6.820	0.261	0.304	0.000	6.940	0.497	0.177	-0.001
6.670	0.497	0.178	-0.001	6.820	0.300	0.261	0.005	6.940	0.536	0.172	-0.002
6.670	0.536	0.175	-0.003	6.820	0.339	0.226	0.002	6.940	0.575	0.159	-0.001
6.670	0.575	0.153	0.000	6.820	0.379	0.212	0.002				
6.700	0.575	0.157	-0.001	6.820	0.418	0.197	0.001				





# Vegetation Density 0.2%

X	Y	V <sub>x</sub>	V <sub>y</sub>	X	Y	V <sub>x</sub>	V <sub>y</sub>	X	Y	V <sub>x</sub>	V <sub>y</sub>
0.440	0.036	0.207	-0.004	0.570	0.272	0.288	-0.005	0.690	0.507	0.290	-0.003
0.440	0.076	0.233	-0.006	0.570	0.311	0.299	-0.005	0.690	0.546	0.267	-0.003
0.440	0.115	0.250	-0.005	0.570	0.351	0.307	-0.005	0.690	0.586	0.207	-0.003
0.450	0.155	0.257	-0.004	0.570	0.390	0.309	-0.004	0.720	0.032	0.211	-0.004
0.450	0.194	0.265	-0.005	0.570	0.430	0.308	-0.004	0.720	0.071	0.240	-0.005
0.450	0.234	0.266	-0.005	0.570	0.469	0.301	-0.002	0.720	0.111	0.256	-0.004
0.450	0.273	0.278	-0.004	0.570	0.509	0.295	-0.002	0.720	0.150	0.265	-0.005
0.450	0.313	0.290	-0.005	0.570	0.548	0.270	-0.003	0.730	0.190	0.269	-0.007
0.450	0.353	0.295	-0.005	0.570	0.588	0.210	-0.002	0.730	0.229	0.275	-0.006
0.450	0.392	0.299	-0.006	0.600	0.034	0.217	-0.004	0.730	0.269	0.284	-0.006
0.450	0.432	0.297	-0.004	0.600	0.073	0.239	-0.004	0.730	0.308	0.295	-0.007
0.450	0.471	0.291	-0.002	0.600	0.113	0.265	-0.004	0.730	0.348	0.297	-0.005
0.450	0.511	0.284	-0.002	0.610	0.152	0.272	-0.004	0.730	0.388	0.303	-0.005
0.450	0.550	0.262	-0.002	0.610	0.192	0.276	-0.006	0.730	0.427	0.299	-0.005
0.450	0.590	0.202	-0.002	0.610	0.231	0.280	-0.006	0.730	0.467	0.294	-0.004
0.480	0.035	0.212	-0.005	0.610	0.271	0.289	-0.006	0.730	0.506	0.290	-0.003
0.480	0.075	0.244	-0.006	0.610	0.310	0.296	-0.006	0.730	0.546	0.266	-0.003
0.490	0.115	0.258	-0.005	0.610	0.350	0.305	-0.006	0.730	0.585	0.210	-0.003
0.490	0.154	0.264	-0.004	0.610	0.390	0.310	-0.004	0.760	0.031	0.211	-0.004
0.490	0.194	0.268	-0.005	0.610	0.429	0.307	-0.005	0.760	0.070	0.242	-0.005
0.490	0.233	0.273	-0.006	0.610	0.469	0.302	-0.003	0.760	0.110	0.261	-0.005
0.490	0.273	0.283	-0.005	0.610	0.508	0.295	-0.002	0.760	0.150	0.268	-0.005
0.490	0.312	0.295	-0.005	0.610	0.548	0.268	-0.002	0.760	0.189	0.270	-0.006
0.490	0.352	0.302	-0.005	0.610	0.587	0.205	-0.002	0.760	0.229	0.275	-0.006
0.490	0.391	0.303	-0.004	0.640	0.033	0.214	-0.003	0.770	0.268	0.287	-0.006
0.490	0.431	0.299	-0.004	0.640	0.072	0.239	-0.004	0.770	0.308	0.296	-0.007
0.490	0.471	0.292	-0.004	0.640	0.112	0.257	-0.004	0.770	0.347	0.304	-0.006
0.490	0.510	0.287	-0.003	0.640	0.152	0.265	-0.005	0.770	0.387	0.304	-0.007
0.490	0.550	0.267	-0.001	0.640	0.191	0.271	-0.005	0.770	0.427	0.300	-0.005
0.490	0.589	0.205	-0.002	0.650	0.231	0.279	-0.005	0.770	0.466	0.294	-0.005
0.520	0.035	0.217	-0.004	0.650	0.270	0.287	-0.005	0.770	0.506	0.287	-0.004
0.520	0.074	0.242	-0.006	0.650	0.310	0.301	-0.007	0.770	0.545	0.264	-0.003
0.520	0.114	0.263	-0.004	0.650	0.349	0.306	-0.005	0.770	0.585	0.211	-0.003
0.520	0.153	0.270	-0.005	0.650	0.389	0.305	-0.005	0.800	0.030	0.216	-0.004
0.530	0.193	0.272	-0.005	0.650	0.428	0.304	-0.003	0.800	0.070	0.246	-0.005
0.530	0.233	0.277	-0.005	0.650	0.468	0.299	-0.004	0.800	0.109	0.264	-0.005
0.530	0.272	0.287	-0.005	0.650	0.508	0.291	-0.003	0.800	0.149	0.269	-0.006
0.530	0.312	0.300	-0.005	0.650	0.547	0.266	-0.003	0.800	0.189	0.273	-0.006
0.530	0.351	0.304	-0.005	0.650	0.587	0.205	-0.002	0.810	0.228	0.278	-0.007
0.530	0.391	0.307	-0.004	0.680	0.032	0.213	-0.004	0.810	0.268	0.285	-0.007
0.530	0.430	0.304	-0.004	0.680	0.072	0.241	-0.005	0.810	0.307	0.296	-0.006
0.530	0.470	0.298	-0.003	0.680	0.111	0.258	-0.005	0.810	0.347	0.302	-0.006
0.530	0.509	0.292	-0.003	0.680	0.151	0.262	-0.005	0.810	0.386	0.300	-0.008
0.530	0.549	0.267	-0.002	0.690	0.190	0.270	-0.005	0.810	0.426	0.299	-0.006
0.530	0.589	0.208	-0.002	0.690	0.230	0.277	-0.006	0.810	0.465	0.298	-0.004
0.560	0.034	0.218	-0.004	0.690	0.270	0.286	-0.006	0.810	0.505	0.291	-0.004
0.560	0.074	0.241	-0.005	0.690	0.309	0.295	-0.007	0.810	0.545	0.265	-0.003
0.560	0.113	0.265	-0.005	0.690	0.349	0.303	-0.006	0.810	0.584	0.212	-0.003
0.560	0.153	0.273	-0.005	0.690	0.388	0.305	-0.005	0.840	0.030	0.217	-0.005
0.570	0.192	0.271	-0.007	0.690	0.428	0.302	-0.004	0.840	0.069	0.249	-0.005
0.570	0.232	0.281	-0.005	0.690	0.467	0.298	-0.004	0.840	0.109	0.270	-0.005





0.840	0.148	0.277	-0.005	0.970	0.463	0.173	-0.005	1.240	0.023	0.238	-0.004
0.840	0.188	0.277	-0.007	1.000	0.027	0.232	-0.005	1.240	0.063	0.264	-0.004
0.850	0.227	0.281	-0.007	1.000	0.067	0.267	-0.005	1.240	0.102	0.286	-0.005
0.850	0.267	0.287	-0.007	1.000	0.106	0.285	-0.006	1.240	0.142	0.293	-0.006
0.850	0.307	0.298	-0.007	1.000	0.146	0.291	-0.007	1.240	0.181	0.296	-0.007
0.850	0.346	0.305	-0.006	1.000	0.185	0.293	-0.007	1.240	0.221	0.301	-0.008
0.850	0.386	0.304	-0.007	1.000	0.225	0.299	-0.008	1.240	0.261	0.294	-0.013
0.850	0.425	0.301	-0.005	1.000	0.264	0.308	-0.009	1.240	0.300	0.204	-0.031
0.850	0.465	0.296	-0.004	1.000	0.304	0.319	-0.009	1.280	0.023	0.235	-0.004
0.850	0.504	0.290	-0.004	1.000	0.344	0.327	-0.008	1.280	0.062	0.260	-0.004
0.850	0.544	0.267	-0.003	1.010	0.383	0.304	-0.013	1.280	0.102	0.280	-0.005
0.850	0.583	0.219	-0.003	1.040	0.026	0.236	-0.004	1.280	0.141	0.291	-0.005
0.880	0.029	0.220	-0.004	1.040	0.066	0.271	-0.004	1.280	0.181	0.293	-0.008
0.880	0.069	0.256	-0.005	1.040	0.106	0.288	-0.005	1.280	0.220	0.295	-0.008
0.880	0.108	0.276	-0.005	1.040	0.145	0.293	-0.007	1.280	0.260	0.283	-0.015
0.880	0.148	0.283	-0.006	1.040	0.185	0.298	-0.008	1.280	0.299	0.281	-0.013
0.880	0.187	0.280	-0.007	1.040	0.224	0.304	-0.008	1.320	0.022	0.231	-0.004
0.880	0.227	0.283	-0.007	1.040	0.264	0.312	-0.009	1.320	0.061	0.256	-0.004
0.880	0.266	0.291	-0.008	1.040	0.303	0.322	-0.008	1.320	0.101	0.279	-0.004
0.890	0.306	0.301	-0.007	1.040	0.343	0.306	-0.014	1.320	0.141	0.287	-0.005
0.890	0.345	0.307	-0.007	1.080	0.026	0.236	-0.004	1.320	0.180	0.288	-0.006
0.890	0.385	0.309	-0.007	1.080	0.065	0.268	-0.004	1.320	0.220	0.287	-0.009
0.890	0.425	0.306	-0.006	1.080	0.105	0.288	-0.005	1.320	0.259	0.284	-0.013
0.890	0.464	0.297	-0.005	1.080	0.144	0.297	-0.006	1.320	0.299	0.261	-0.011
0.890	0.504	0.295	-0.005	1.080	0.184	0.300	-0.007	1.360	0.021	0.229	-0.003
0.890	0.543	0.269	-0.004	1.080	0.224	0.303	-0.008	1.360	0.061	0.255	-0.004
0.890	0.583	0.212	-0.004	1.080	0.263	0.315	-0.009	1.360	0.100	0.277	-0.005
0.920	0.028	0.227	-0.004	1.080	0.303	0.326	-0.010	1.360	0.140	0.284	-0.005
0.920	0.068	0.262	-0.004	1.090	0.342	0.330	-0.014	1.360	0.179	0.288	-0.006
0.920	0.107	0.279	-0.005	1.120	0.025	0.236	-0.004	1.360	0.219	0.286	-0.008
0.920	0.147	0.286	-0.006	1.120	0.065	0.267	-0.004	1.360	0.259	0.284	-0.010
0.920	0.187	0.286	-0.007	1.120	0.104	0.289	-0.005	1.360	0.298	0.270	-0.012
0.920	0.226	0.290	-0.007	1.120	0.144	0.297	-0.006	1.400	0.021	0.229	-0.004
0.930	0.266	0.295	-0.008	1.120	0.183	0.300	-0.007	1.400	0.060	0.255	-0.004
0.930	0.305	0.302	-0.008	1.120	0.223	0.308	-0.008	1.400	0.100	0.277	-0.005
0.930	0.345	0.306	-0.008	1.120	0.262	0.319	-0.009	1.400	0.139	0.281	-0.005
0.930	0.384	0.307	-0.007	1.120	0.302	0.331	-0.012	1.400	0.179	0.284	-0.006
0.930	0.424	0.308	-0.006	1.160	0.024	0.235	-0.004	1.400	0.218	0.286	-0.007
0.930	0.463	0.295	-0.005	1.160	0.064	0.266	-0.004	1.400	0.258	0.289	-0.007
0.930	0.503	0.292	-0.005	1.160	0.104	0.287	-0.005	1.400	0.298	0.289	-0.007
0.930	0.543	0.262	-0.005	1.160	0.143	0.296	-0.006	1.400	0.337	0.278	-0.003
0.930	0.582	0.169	-0.004	1.160	0.183	0.301	-0.006	1.440	0.020	0.229	-0.004
0.960	0.028	0.230	-0.004	1.160	0.222	0.305	-0.007	1.440	0.060	0.254	-0.005
0.960	0.067	0.265	-0.004	1.160	0.262	0.314	-0.008	1.440	0.099	0.277	-0.004
0.960	0.107	0.284	-0.006	1.160	0.301	0.243	-0.010	1.440	0.139	0.284	-0.005
0.960	0.146	0.289	-0.006	1.200	0.024	0.238	-0.004	1.440	0.178	0.287	-0.006
0.960	0.186	0.290	-0.007	1.200	0.063	0.266	-0.004	1.440	0.218	0.287	-0.007
0.960	0.225	0.293	-0.008	1.200	0.103	0.287	-0.005	1.440	0.257	0.292	-0.007
0.960	0.265	0.302	-0.008	1.200	0.142	0.294	-0.006	1.440	0.297	0.290	-0.006
0.960	0.305	0.311	-0.009	1.200	0.182	0.298	-0.007	1.440	0.336	0.262	-0.006
0.970	0.344	0.314	-0.008	1.200	0.222	0.302	-0.008	1.440	0.376	0.277	-0.003
0.970	0.384	0.310	-0.008	1.200	0.261	0.302	-0.010	1.480	0.019	0.233	-0.004
0.970	0.423	0.283	-0.008	1.200	0.301	0.129	-0.003	1.480	0.059	0.256	-0.004





1.480	0.098	0.278	-0.004	1.640	0.056	0.261	-0.004	1.760	0.371	0.273	-0.004
1.480	0.138	0.285	-0.005	1.640	0.096	0.282	-0.004	1.760	0.410	0.266	-0.004
1.480	0.178	0.289	-0.005	1.640	0.135	0.288	-0.005	1.760	0.450	0.257	-0.004
1.480	0.217	0.291	-0.006	1.640	0.175	0.290	-0.005	1.760	0.489	0.249	-0.005
1.480	0.257	0.295	-0.007	1.640	0.215	0.295	-0.006	1.760	0.529	0.223	-0.004
1.480	0.296	0.297	-0.006	1.640	0.254	0.299	-0.006	1.760	0.569	0.182	-0.003
1.480	0.336	0.282	-0.006	1.640	0.294	0.296	-0.006	1.800	0.014	0.240	-0.004
1.480	0.375	0.263	-0.006	1.640	0.333	0.284	-0.005	1.800	0.054	0.264	-0.003
1.480	0.415	0.210	-0.002	1.640	0.373	0.267	-0.005	1.800	0.093	0.285	-0.004
1.520	0.019	0.238	-0.004	1.640	0.412	0.261	-0.005	1.800	0.133	0.295	-0.004
1.520	0.058	0.258	-0.004	1.640	0.452	0.255	-0.005	1.800	0.172	0.298	-0.005
1.520	0.098	0.278	-0.005	1.640	0.491	0.246	-0.006	1.800	0.212	0.299	-0.006
1.520	0.137	0.285	-0.005	1.640	0.531	0.221	-0.004	1.800	0.251	0.303	-0.006
1.520	0.177	0.291	-0.005	1.640	0.571	0.179	-0.002	1.800	0.291	0.297	-0.006
1.520	0.216	0.294	-0.006	1.680	0.016	0.237	-0.004	1.800	0.331	0.285	-0.005
1.520	0.256	0.298	-0.006	1.680	0.056	0.260	-0.004	1.800	0.370	0.273	-0.004
1.520	0.296	0.297	-0.007	1.680	0.095	0.282	-0.004	1.800	0.410	0.265	-0.004
1.520	0.335	0.283	-0.006	1.680	0.135	0.288	-0.005	1.800	0.449	0.263	-0.004
1.520	0.375	0.268	-0.006	1.680	0.174	0.290	-0.005	1.800	0.489	0.254	-0.005
1.520	0.414	0.260	-0.006	1.680	0.214	0.297	-0.006	1.800	0.528	0.226	-0.005
1.520	0.454	0.243	-0.003	1.680	0.253	0.301	-0.007	1.800	0.568	0.184	-0.003
1.520	0.493	0.106	-0.001	1.680	0.293	0.298	-0.006	1.840	0.013	0.239	-0.004
1.560	0.018	0.239	-0.004	1.680	0.333	0.285	-0.005	1.840	0.053	0.260	-0.003
1.560	0.058	0.259	-0.004	1.680	0.372	0.266	-0.004	1.840	0.093	0.277	-0.004
1.560	0.097	0.279	-0.005	1.680	0.412	0.261	-0.004	1.840	0.132	0.288	-0.004
1.560	0.137	0.287	-0.005	1.680	0.451	0.257	-0.004	1.840	0.172	0.292	-0.005
1.560	0.176	0.288	-0.005	1.680	0.491	0.245	-0.006	1.840	0.211	0.297	-0.006
1.560	0.216	0.292	-0.006	1.680	0.530	0.220	-0.004	1.840	0.251	0.302	-0.006
1.560	0.255	0.297	-0.006	1.680	0.570	0.180	-0.003	1.840	0.290	0.297	-0.007
1.560	0.295	0.293	-0.006	1.720	0.015	0.233	-0.004	1.840	0.330	0.286	-0.006
1.560	0.334	0.281	-0.006	1.720	0.055	0.259	-0.004	1.840	0.370	0.273	-0.004
1.560	0.374	0.269	-0.005	1.720	0.095	0.284	-0.004	1.840	0.409	0.263	-0.004
1.560	0.414	0.262	-0.004	1.720	0.134	0.292	-0.004	1.840	0.449	0.260	-0.004
1.560	0.453	0.254	-0.005	1.720	0.174	0.294	-0.005	1.840	0.488	0.245	-0.006
1.570	0.493	0.227	-0.009	1.720	0.213	0.298	-0.005	1.840	0.528	0.223	-0.005
1.570	0.532	0.197	-0.004	1.720	0.253	0.304	-0.006	1.840	0.567	0.184	-0.004
1.570	0.572	0.176	-0.003	1.720	0.292	0.300	-0.006	1.880	0.013	0.231	-0.003
1.600	0.017	0.238	-0.003	1.720	0.332	0.287	-0.005	1.880	0.052	0.262	-0.003
1.600	0.057	0.260	-0.004	1.720	0.371	0.272	-0.004	1.880	0.092	0.281	-0.003
1.600	0.096	0.281	-0.004	1.720	0.411	0.263	-0.004	1.880	0.132	0.287	-0.004
1.600	0.136	0.288	-0.005	1.720	0.451	0.256	-0.004	1.880	0.171	0.291	-0.004
1.600	0.176	0.291	-0.005	1.720	0.490	0.245	-0.005	1.880	0.211	0.299	-0.005
1.600	0.215	0.295	-0.005	1.720	0.530	0.219	-0.004	1.880	0.250	0.306	-0.006
1.600	0.255	0.299	-0.006	1.730	0.569	0.179	-0.003	1.880	0.290	0.298	-0.006
1.600	0.294	0.293	-0.006	1.760	0.015	0.235	-0.004	1.880	0.329	0.284	-0.004
1.600	0.334	0.282	-0.005	1.760	0.054	0.260	-0.004	1.880	0.369	0.270	-0.004
1.600	0.373	0.268	-0.004	1.760	0.094	0.285	-0.004	1.880	0.408	0.263	-0.003
1.600	0.413	0.259	-0.005	1.760	0.133	0.294	-0.004	1.880	0.448	0.260	-0.004
1.600	0.453	0.252	-0.005	1.760	0.173	0.297	-0.005	1.880	0.488	0.243	-0.006
1.600	0.492	0.242	-0.005	1.760	0.213	0.300	-0.005	1.880	0.527	0.221	-0.005
1.610	0.532	0.220	-0.004	1.760	0.252	0.305	-0.006	1.880	0.567	0.182	-0.003
1.610	0.571	0.181	-0.002	1.760	0.292	0.297	-0.006	1.910	0.012	0.229	-0.001
1.640	0.017	0.238	-0.003	1.760	0.331	0.283	-0.005	1.920	0.052	0.268	-0.003





1.920	0.091	0.273	-0.004	2.040	0.418	0.255	-0.002	2.190	0.142	0.279	-0.002
1.920	0.131	0.280	-0.004	2.040	0.457	0.248	-0.001	2.190	0.181	0.282	-0.003
1.920	0.170	0.287	-0.006	2.040	0.497	0.237	0.000	2.190	0.221	0.290	-0.002
1.920	0.210	0.298	-0.008	2.040	0.536	0.213	-0.001	2.190	0.260	0.290	-0.002
1.920	0.250	0.299	-0.007	2.040	0.575	0.175	-0.001	2.190	0.299	0.283	-0.002
1.920	0.289	0.293	-0.006	2.070	0.025	0.211	-0.001	2.190	0.339	0.271	-0.002
1.920	0.329	0.281	-0.006	2.070	0.064	0.245	-0.002	2.190	0.378	0.260	-0.001
1.920	0.368	0.272	-0.004	2.070	0.103	0.273	-0.002	2.190	0.417	0.255	0.000
1.920	0.408	0.257	-0.005	2.080	0.143	0.279	-0.003	2.190	0.457	0.252	0.000
1.920	0.447	0.256	-0.005	2.080	0.182	0.282	-0.003	2.190	0.496	0.243	0.000
1.920	0.487	0.252	-0.007	2.080	0.221	0.287	-0.002	2.190	0.535	0.215	0.000
1.920	0.526	0.229	-0.004	2.080	0.261	0.284	-0.001	2.190	0.575	0.179	0.000
1.920	0.566	0.150	-0.004	2.080	0.300	0.281	-0.001	2.230	0.024	0.209	-0.001
1.960	0.025	0.217	-0.001	2.080	0.339	0.270	-0.002	2.230	0.063	0.248	-0.002
1.960	0.065	0.253	-0.002	2.080	0.379	0.264	-0.002	2.230	0.103	0.274	-0.002
1.960	0.104	0.273	-0.002	2.080	0.418	0.259	-0.002	2.230	0.142	0.279	-0.002
1.960	0.143	0.280	-0.003	2.080	0.457	0.252	-0.002	2.230	0.181	0.283	-0.002
1.960	0.183	0.287	-0.005	2.080	0.497	0.237	-0.001	2.230	0.221	0.288	-0.003
1.960	0.222	0.292	-0.004	2.080	0.536	0.213	-0.001	2.230	0.260	0.292	-0.002
1.960	0.261	0.292	-0.003	2.080	0.575	0.177	-0.001	2.230	0.299	0.283	-0.001
1.960	0.301	0.290	-0.002	2.110	0.025	0.212	-0.001	2.230	0.338	0.270	-0.001
1.960	0.340	0.274	-0.002	2.110	0.064	0.243	-0.002	2.230	0.378	0.261	-0.001
1.960	0.379	0.262	-0.002	2.110	0.103	0.268	-0.002	2.230	0.417	0.256	0.000
1.960	0.419	0.254	-0.002	2.110	0.143	0.273	-0.002	2.230	0.456	0.252	0.000
1.960	0.458	0.248	-0.003	2.110	0.182	0.277	-0.002	2.230	0.496	0.244	-0.001
1.960	0.497	0.235	-0.001	2.110	0.221	0.288	-0.003	2.230	0.535	0.215	-0.001
1.960	0.537	0.215	-0.001	2.110	0.260	0.289	-0.003	2.230	0.574	0.184	-0.001
1.960	0.576	0.181	-0.001	2.110	0.300	0.283	-0.002	2.270	0.024	0.208	0.000
2.000	0.025	0.217	-0.002	2.110	0.339	0.272	-0.002	2.270	0.063	0.245	-0.002
2.000	0.065	0.247	-0.002	2.110	0.378	0.259	-0.001	2.270	0.102	0.272	-0.002
2.000	0.104	0.275	-0.002	2.120	0.418	0.255	-0.002	2.270	0.142	0.278	-0.002
2.000	0.143	0.281	-0.003	2.120	0.457	0.252	-0.002	2.270	0.181	0.285	-0.003
2.000	0.182	0.287	-0.004	2.120	0.496	0.240	-0.002	2.270	0.220	0.287	-0.002
2.000	0.222	0.287	-0.003	2.120	0.536	0.215	0.000	2.270	0.260	0.289	-0.002
2.000	0.261	0.287	-0.003	2.120	0.575	0.177	-0.001	2.270	0.299	0.284	-0.002
2.000	0.300	0.284	-0.002	2.150	0.024	0.217	-0.001	2.270	0.338	0.273	-0.002
2.000	0.340	0.270	-0.002	2.150	0.064	0.243	-0.003	2.270	0.378	0.264	-0.001
2.000	0.379	0.260	-0.002	2.150	0.103	0.269	-0.002	2.270	0.417	0.259	-0.001
2.000	0.418	0.254	-0.002	2.150	0.142	0.271	-0.002	2.270	0.456	0.254	-0.001
2.000	0.458	0.250	-0.001	2.150	0.182	0.281	-0.004	2.270	0.496	0.242	0.000
2.000	0.497	0.236	0.000	2.150	0.221	0.291	-0.003	2.270	0.535	0.216	-0.001
2.000	0.536	0.213	-0.001	2.150	0.260	0.289	-0.002	2.270	0.574	0.187	-0.001
2.000	0.576	0.179	-0.001	2.150	0.300	0.280	-0.001	2.310	0.023	0.211	0.000
2.040	0.025	0.210	-0.001	2.150	0.339	0.272	-0.002	2.310	0.063	0.246	-0.002
2.040	0.064	0.244	-0.002	2.150	0.378	0.260	-0.001	2.310	0.102	0.274	-0.002
2.040	0.104	0.273	-0.002	2.150	0.418	0.255	-0.001	2.310	0.141	0.279	-0.002
2.040	0.143	0.278	-0.002	2.150	0.457	0.252	-0.002	2.310	0.181	0.282	-0.002
2.040	0.182	0.286	-0.003	2.150	0.496	0.242	-0.001	2.310	0.220	0.286	-0.003
2.040	0.222	0.287	-0.002	2.150	0.535	0.215	0.000	2.310	0.259	0.287	-0.001
2.040	0.261	0.289	-0.002	2.150	0.575	0.180	-0.001	2.310	0.299	0.281	-0.001
2.040	0.300	0.283	-0.002	2.190	0.024	0.218	-0.002	2.310	0.338	0.274	-0.001
2.040	0.340	0.271	-0.002	2.190	0.063	0.247	-0.003	2.310	0.377	0.264	-0.001
2.040	0.379	0.262	-0.002	2.190	0.103	0.274	-0.002	2.310	0.417	0.259	-0.001





2.310	0.456	0.255	-0.001	2.470	0.180	0.281	-0.002	2.590	0.494	0.240	-0.001
2.310	0.495	0.242	-0.001	2.470	0.219	0.286	-0.003	2.590	0.533	0.213	-0.001
2.310	0.535	0.212	-0.001	2.470	0.259	0.290	-0.002	2.590	0.572	0.190	-0.001
2.310	0.574	0.185	-0.002	2.470	0.298	0.285	-0.001	2.630	0.022	0.217	-0.001
2.350	0.023	0.226	-0.001	2.470	0.337	0.276	-0.001	2.630	0.061	0.231	-0.001
2.350	0.063	0.246	-0.002	2.470	0.377	0.264	-0.001	2.630	0.100	0.262	-0.001
2.350	0.102	0.273	-0.002	2.470	0.416	0.260	-0.001	2.630	0.140	0.273	-0.001
2.350	0.141	0.280	-0.002	2.470	0.455	0.255	-0.001	2.630	0.179	0.279	-0.002
2.350	0.181	0.282	-0.003	2.470	0.494	0.242	-0.001	2.630	0.218	0.282	-0.002
2.350	0.220	0.287	-0.002	2.470	0.534	0.214	-0.001	2.630	0.258	0.282	-0.002
2.350	0.259	0.290	-0.002	2.470	0.573	0.190	-0.001	2.630	0.297	0.278	-0.001
2.350	0.299	0.286	0.000	2.510	0.022	0.222	-0.001	2.630	0.336	0.265	-0.001
2.350	0.338	0.276	-0.001	2.510	0.062	0.240	-0.002	2.630	0.376	0.253	-0.002
2.350	0.377	0.264	-0.001	2.510	0.101	0.271	-0.001	2.630	0.415	0.249	-0.002
2.350	0.416	0.258	0.000	2.510	0.140	0.276	-0.002	2.630	0.454	0.250	-0.002
2.350	0.456	0.255	-0.001	2.510	0.180	0.281	-0.002	2.630	0.494	0.237	-0.001
2.350	0.495	0.242	-0.001	2.510	0.219	0.284	-0.002	2.630	0.533	0.209	-0.001
2.350	0.534	0.214	-0.001	2.510	0.258	0.288	-0.002	2.630	0.572	0.189	-0.001
2.350	0.574	0.186	-0.001	2.510	0.298	0.281	-0.002	2.670	0.022	0.214	-0.001
2.390	0.023	0.226	-0.001	2.510	0.337	0.276	-0.002	2.670	0.061	0.230	-0.002
2.390	0.062	0.245	-0.002	2.510	0.376	0.264	-0.001	2.670	0.100	0.259	-0.001
2.390	0.102	0.275	-0.001	2.510	0.416	0.258	-0.001	2.670	0.140	0.269	-0.002
2.390	0.141	0.281	-0.002	2.510	0.455	0.257	-0.002	2.670	0.179	0.275	-0.001
2.390	0.180	0.284	-0.003	2.510	0.494	0.246	-0.001	2.670	0.218	0.281	-0.002
2.390	0.220	0.289	-0.002	2.510	0.534	0.216	-0.002	2.670	0.257	0.282	-0.002
2.390	0.259	0.292	-0.002	2.510	0.573	0.192	-0.001	2.670	0.297	0.277	-0.002
2.390	0.298	0.286	-0.001	2.550	0.022	0.218	0.000	2.670	0.336	0.265	-0.001
2.390	0.338	0.276	-0.001	2.550	0.062	0.237	-0.002	2.670	0.375	0.254	-0.001
2.390	0.377	0.265	-0.001	2.550	0.101	0.268	-0.001	2.670	0.415	0.250	-0.001
2.390	0.416	0.259	-0.001	2.550	0.140	0.276	-0.001	2.670	0.454	0.250	0.000
2.390	0.456	0.256	-0.001	2.550	0.179	0.280	-0.001	2.670	0.493	0.237	-0.001
2.390	0.495	0.242	0.000	2.550	0.219	0.284	-0.001	2.670	0.533	0.210	-0.001
2.390	0.534	0.216	-0.001	2.550	0.258	0.282	-0.002	2.670	0.572	0.188	-0.002
2.390	0.574	0.187	-0.001	2.550	0.297	0.280	-0.003	2.700	0.021	0.216	-0.001
2.430	0.023	0.224	-0.002	2.550	0.337	0.271	-0.003	2.700	0.061	0.232	-0.002
2.430	0.062	0.242	-0.002	2.550	0.376	0.259	-0.001	2.700	0.100	0.261	-0.001
2.430	0.101	0.270	-0.002	2.550	0.415	0.254	-0.001	2.700	0.139	0.268	-0.001
2.430	0.141	0.277	-0.001	2.550	0.455	0.254	-0.001	2.700	0.179	0.273	-0.001
2.430	0.180	0.283	-0.002	2.550	0.494	0.244	-0.001	2.710	0.218	0.279	-0.002
2.430	0.219	0.286	-0.002	2.550	0.533	0.217	-0.001	2.710	0.257	0.281	-0.001
2.430	0.259	0.290	-0.001	2.550	0.573	0.191	-0.001	2.710	0.297	0.277	0.000
2.430	0.298	0.284	-0.001	2.590	0.022	0.217	-0.001	2.710	0.336	0.267	-0.001
2.430	0.337	0.274	0.000	2.590	0.061	0.234	-0.001	2.710	0.375	0.256	0.000
2.430	0.377	0.266	0.000	2.590	0.101	0.263	-0.001	2.710	0.415	0.250	0.000
2.430	0.416	0.260	-0.001	2.590	0.140	0.273	-0.002	2.710	0.454	0.249	0.000
2.430	0.455	0.256	-0.001	2.590	0.179	0.278	-0.001	2.710	0.493	0.236	0.000
2.430	0.495	0.242	0.000	2.590	0.219	0.282	0.000	2.710	0.533	0.213	-0.001
2.430	0.534	0.215	-0.002	2.590	0.258	0.284	-0.001	2.710	0.572	0.193	-0.001
2.430	0.573	0.188	-0.001	2.590	0.297	0.279	-0.001	2.740	0.021	0.217	-0.001
2.470	0.023	0.225	-0.001	2.590	0.337	0.269	-0.001	2.740	0.060	0.231	-0.002
2.470	0.062	0.242	-0.002	2.590	0.376	0.258	-0.001	2.740	0.100	0.260	-0.001
2.470	0.101	0.267	-0.001	2.590	0.415	0.254	-0.002	2.740	0.139	0.268	-0.001
2.470	0.141	0.274	-0.001	2.590	0.455	0.253	-0.002	2.740	0.178	0.275	-0.001





2.740	0.218	0.278	-0.002	2.860	0.532	0.217	-0.001	3.020	0.256	0.268	-0.001
2.740	0.257	0.279	-0.002	2.860	0.571	0.198	-0.001	3.020	0.295	0.270	0.000
2.740	0.296	0.275	0.000	2.900	0.020	0.209	-0.002	3.020	0.334	0.263	0.000
2.740	0.336	0.266	-0.001	2.900	0.060	0.230	-0.002	3.020	0.374	0.253	-0.001
2.740	0.375	0.256	-0.001	2.900	0.099	0.256	-0.001	3.020	0.413	0.247	-0.002
2.740	0.414	0.248	-0.001	2.900	0.138	0.266	-0.001	3.020	0.452	0.243	-0.001
2.740	0.454	0.247	-0.001	2.900	0.178	0.272	0.000	3.020	0.491	0.235	-0.001
2.740	0.493	0.236	0.000	2.900	0.217	0.275	-0.001	3.020	0.531	0.211	-0.001
2.750	0.532	0.215	-0.001	2.900	0.256	0.274	-0.001	3.020	0.570	0.195	-0.001
2.750	0.572	0.195	-0.001	2.900	0.296	0.275	0.000	3.060	0.059	0.224	0.000
2.780	0.021	0.213	-0.001	2.900	0.335	0.267	0.001	3.060	0.098	0.246	-0.002
2.780	0.060	0.229	-0.002	2.900	0.374	0.256	-0.001	3.060	0.137	0.255	-0.002
2.780	0.100	0.261	-0.001	2.900	0.413	0.247	-0.001	3.060	0.177	0.260	-0.001
2.780	0.139	0.267	-0.001	2.900	0.453	0.246	-0.001	3.060	0.216	0.268	0.000
2.780	0.178	0.272	-0.001	2.900	0.492	0.237	-0.001	3.060	0.255	0.269	-0.001
2.780	0.218	0.278	-0.001	2.900	0.531	0.213	-0.001	3.060	0.295	0.268	-0.001
2.780	0.257	0.280	-0.001	2.900	0.571	0.196	-0.001	3.060	0.334	0.263	0.000
2.780	0.296	0.279	0.000	2.940	0.020	0.213	-0.001	3.060	0.373	0.252	-0.001
2.780	0.335	0.271	0.000	2.940	0.059	0.229	-0.002	3.060	0.413	0.246	-0.002
2.780	0.375	0.258	-0.001	2.940	0.099	0.254	-0.002	3.060	0.452	0.242	-0.002
2.780	0.414	0.250	-0.001	2.940	0.138	0.261	-0.002	3.060	0.491	0.233	-0.002
2.780	0.453	0.246	-0.001	2.940	0.177	0.268	-0.001	3.060	0.531	0.212	-0.001
2.780	0.493	0.238	-0.001	2.940	0.217	0.273	0.000	3.060	0.570	0.195	-0.001
2.780	0.532	0.214	-0.001	2.940	0.256	0.274	-0.001	3.100	0.019	0.208	0.000
2.780	0.571	0.196	-0.001	2.940	0.295	0.274	0.000	3.100	0.059	0.222	0.000
2.820	0.021	0.205	-0.002	2.940	0.335	0.266	0.000	3.100	0.098	0.244	-0.002
2.820	0.060	0.229	-0.002	2.940	0.374	0.253	0.000	3.100	0.137	0.252	-0.002
2.820	0.099	0.260	-0.001	2.940	0.413	0.247	-0.002	3.100	0.177	0.261	0.000
2.820	0.139	0.267	-0.001	2.940	0.453	0.239	-0.001	3.100	0.216	0.268	0.000
2.820	0.178	0.273	-0.001	2.940	0.492	0.232	-0.001	3.100	0.255	0.269	0.000
2.820	0.217	0.280	-0.001	2.940	0.531	0.211	-0.001	3.100	0.294	0.267	0.000
2.820	0.257	0.282	0.000	2.940	0.571	0.195	-0.001	3.100	0.334	0.260	0.000
2.820	0.296	0.278	0.000	2.980	0.020	0.206	-0.001	3.100	0.373	0.250	-0.001
2.820	0.335	0.270	0.000	2.980	0.059	0.225	-0.001	3.100	0.412	0.246	-0.002
2.820	0.375	0.258	-0.001	2.980	0.099	0.250	-0.002	3.100	0.452	0.243	-0.002
2.820	0.414	0.251	-0.001	2.980	0.138	0.260	-0.001	3.100	0.491	0.233	-0.002
2.820	0.453	0.247	-0.001	2.980	0.177	0.266	-0.001	3.100	0.530	0.212	-0.001
2.820	0.493	0.238	-0.001	2.980	0.216	0.270	0.000	3.100	0.570	0.196	-0.001
2.820	0.532	0.216	-0.001	2.980	0.256	0.271	-0.001	3.140	0.019	0.208	0.000
2.820	0.571	0.196	-0.001	2.980	0.295	0.271	0.000	3.140	0.058	0.223	0.000
2.860	0.021	0.208	-0.004	2.980	0.334	0.262	0.000	3.140	0.098	0.244	-0.002
2.860	0.060	0.232	-0.002	2.980	0.374	0.253	-0.001	3.140	0.137	0.253	-0.002
2.860	0.099	0.260	-0.001	2.980	0.413	0.245	-0.002	3.140	0.176	0.257	-0.002
2.860	0.138	0.269	-0.001	2.980	0.452	0.242	-0.002	3.140	0.216	0.262	-0.001
2.860	0.178	0.272	-0.001	2.980	0.492	0.232	-0.001	3.140	0.255	0.264	0.000
2.860	0.217	0.278	-0.001	2.980	0.531	0.209	-0.001	3.140	0.294	0.263	0.000
2.860	0.256	0.278	-0.001	2.980	0.570	0.193	-0.001	3.140	0.334	0.256	-0.001
2.860	0.296	0.275	-0.001	3.020	0.020	0.205	0.000	3.140	0.373	0.248	-0.001
2.860	0.335	0.266	-0.001	3.020	0.059	0.226	-0.001	3.140	0.412	0.241	-0.002
2.860	0.374	0.256	-0.001	3.020	0.098	0.247	-0.001	3.140	0.452	0.239	-0.002
2.860	0.414	0.247	-0.002	3.020	0.138	0.258	-0.001	3.140	0.491	0.230	-0.001
2.860	0.453	0.245	-0.001	3.020	0.177	0.263	-0.001	3.140	0.530	0.213	-0.001
2.860	0.492	0.236	-0.002	3.020	0.216	0.267	-0.001	3.140	0.569	0.199	-0.001





3.180	0.019	0.223	-0.002	3.290	0.341	0.266	0.001	3.490	0.340	0.275	0.001
3.180	0.058	0.228	-0.001	3.290	0.380	0.257	-0.001	3.490	0.379	0.267	0.001
3.180	0.097	0.240	-0.003	3.290	0.420	0.251	-0.001	3.490	0.418	0.264	0.001
3.180	0.137	0.255	-0.003	3.290	0.459	0.247	-0.001	3.490	0.458	0.262	0.000
3.180	0.176	0.258	-0.003	3.290	0.498	0.237	-0.001	3.490	0.497	0.248	-0.001
3.180	0.215	0.255	0.001	3.290	0.538	0.220	0.000	3.490	0.536	0.238	-0.001
3.180	0.255	0.264	0.003	3.290	0.577	0.186	-0.001	3.490	0.576	0.204	-0.001
3.180	0.294	0.268	0.001	3.330	0.026	0.166	0.000	3.530	0.300	0.236	0.006
3.180	0.333	0.265	0.004	3.330	0.065	0.235	-0.001	3.530	0.339	0.269	0.004
3.180	0.373	0.254	0.000	3.330	0.104	0.252	-0.002	3.530	0.379	0.271	0.001
3.180	0.412	0.236	-0.001	3.330	0.144	0.256	-0.001	3.530	0.418	0.266	0.001
3.180	0.451	0.231	-0.001	3.330	0.183	0.264	0.000	3.530	0.457	0.264	0.001
3.180	0.491	0.229	-0.001	3.330	0.223	0.268	0.000	3.530	0.497	0.255	-0.001
3.180	0.530	0.215	-0.003	3.330	0.262	0.271	0.002	3.530	0.536	0.241	-0.002
3.180	0.569	0.211	-0.001	3.330	0.301	0.269	0.002	3.530	0.576	0.203	0.000
3.210	0.027	0.204	-0.001	3.330	0.341	0.265	0.001	3.570	0.300	0.230	0.005
3.210	0.066	0.228	-0.001	3.330	0.380	0.258	0.000	3.570	0.339	0.266	0.006
3.210	0.105	0.248	-0.002	3.330	0.419	0.252	0.000	3.570	0.378	0.269	0.001
3.210	0.145	0.256	-0.003	3.330	0.459	0.248	0.000	3.570	0.418	0.263	0.000
3.210	0.184	0.266	-0.002	3.330	0.498	0.240	-0.001	3.570	0.457	0.260	0.001
3.210	0.223	0.271	-0.001	3.330	0.538	0.225	-0.001	3.570	0.496	0.257	-0.001
3.210	0.263	0.269	0.001	3.330	0.577	0.185	-0.001	3.570	0.536	0.241	-0.002
3.210	0.302	0.266	0.000	3.370	0.144	0.266	-0.001	3.570	0.575	0.205	-0.001
3.210	0.341	0.260	0.000	3.370	0.183	0.262	0.001	3.610	0.339	0.250	0.006
3.210	0.381	0.252	-0.001	3.370	0.222	0.267	0.001	3.610	0.378	0.265	0.003
3.210	0.420	0.247	-0.001	3.370	0.262	0.270	0.001	3.610	0.417	0.264	0.000
3.210	0.460	0.241	-0.001	3.370	0.301	0.275	0.002	3.610	0.457	0.262	-0.001
3.210	0.499	0.231	-0.001	3.370	0.340	0.267	0.002	3.610	0.496	0.255	-0.001
3.210	0.538	0.218	0.000	3.370	0.380	0.257	0.000	3.610	0.536	0.239	-0.002
3.210	0.578	0.179	-0.002	3.370	0.419	0.256	0.000	3.610	0.575	0.205	-0.001
3.250	0.026	0.202	0.000	3.370	0.459	0.253	0.000	3.650	0.299	0.007	0.007
3.250	0.066	0.225	-0.001	3.370	0.498	0.244	-0.001	3.650	0.338	0.219	0.003
3.250	0.105	0.247	-0.003	3.370	0.537	0.230	0.000	3.650	0.378	0.255	0.002
3.250	0.144	0.254	-0.003	3.370	0.577	0.190	0.000	3.650	0.417	0.262	0.001
3.250	0.184	0.262	-0.002	3.410	0.222	0.212	0.003	3.650	0.457	0.261	-0.001
3.250	0.223	0.269	0.001	3.410	0.261	0.271	0.003	3.650	0.496	0.255	-0.001
3.250	0.262	0.268	0.000	3.410	0.301	0.278	0.002	3.650	0.535	0.241	-0.001
3.250	0.302	0.266	0.000	3.410	0.340	0.272	0.002	3.650	0.575	0.205	-0.001
3.250	0.341	0.262	0.000	3.410	0.379	0.264	0.001	3.690	0.299	0.071	0.003
3.250	0.381	0.253	-0.001	3.410	0.458	0.255	-0.001	3.690	0.338	0.242	0.003
3.250	0.420	0.249	-0.001	3.410	0.498	0.245	-0.001	3.690	0.378	0.255	0.002
3.250	0.459	0.244	-0.001	3.410	0.537	0.232	0.000	3.690	0.417	0.260	0.002
3.250	0.499	0.232	-0.001	3.410	0.576	0.195	0.000	3.690	0.456	0.261	0.001
3.250	0.538	0.216	0.000	3.450	0.261	0.228	0.009	3.690	0.496	0.254	-0.001
3.250	0.577	0.179	-0.001	3.450	0.300	0.270	0.006	3.690	0.535	0.239	-0.001
3.290	0.026	0.186	0.001	3.450	0.340	0.277	0.001	3.690	0.574	0.205	-0.001
3.290	0.065	0.228	-0.001	3.450	0.379	0.271	0.001	3.730	0.299	0.187	-0.001
3.290	0.105	0.249	-0.003	3.450	0.419	0.262	0.001	3.730	0.338	0.238	0.004
3.290	0.144	0.256	-0.002	3.450	0.458	0.255	0.000	3.730	0.377	0.255	0.004
3.290	0.183	0.266	-0.001	3.450	0.497	0.244	-0.001	3.730	0.417	0.260	0.002
3.290	0.223	0.272	0.001	3.450	0.537	0.234	-0.001	3.730	0.456	0.258	0.001
3.290	0.262	0.272	0.002	3.450	0.576	0.197	0.000	3.730	0.495	0.251	0.000
3.290	0.302	0.270	0.001	3.490	0.300	0.265	0.012	3.730	0.535	0.236	-0.001



3.730	0.574	0.207	-0.001	3.960	0.061	0.187	0.000	4.080	0.375	0.256	-0.001
3.770	0.298	0.182	0.003	3.960	0.100	0.202	0.000	4.080	0.414	0.256	-0.002
3.770	0.338	0.260	0.003	3.960	0.139	0.216	-0.001	4.080	0.454	0.251	-0.002
3.770	0.377	0.261	0.002	3.960	0.179	0.219	-0.001	4.080	0.493	0.242	-0.001
3.770	0.416	0.262	0.002	3.960	0.218	0.221	-0.001	4.080	0.532	0.230	-0.001
3.770	0.456	0.256	0.001	3.960	0.257	0.236	-0.002	4.080	0.572	0.204	-0.001
3.770	0.495	0.249	-0.001	3.960	0.297	0.251	0.000	4.120	0.020	0.148	-0.001
3.770	0.534	0.235	-0.001	3.960	0.336	0.260	0.000	4.120	0.060	0.173	-0.002
3.770	0.574	0.206	-0.001	3.960	0.376	0.263	0.000	4.120	0.099	0.194	-0.001
3.810	0.259	0.140	0.002	3.960	0.415	0.261	-0.001	4.120	0.138	0.207	-0.001
3.810	0.298	0.240	0.001	3.960	0.454	0.256	-0.001	4.120	0.178	0.211	-0.001
3.810	0.337	0.266	0.002	3.960	0.494	0.250	-0.001	4.120	0.217	0.218	-0.001
3.810	0.377	0.266	0.002	3.960	0.533	0.237	-0.001	4.120	0.256	0.229	-0.002
3.810	0.416	0.265	0.001	3.960	0.572	0.204	-0.002	4.120	0.296	0.243	-0.002
3.810	0.455	0.262	0.000	4.000	0.021	0.158	-0.001	4.120	0.335	0.257	-0.002
3.810	0.495	0.249	-0.001	4.000	0.060	0.182	-0.001	4.120	0.374	0.255	-0.003
3.810	0.534	0.237	-0.002	4.000	0.100	0.201	0.000	4.120	0.414	0.252	-0.002
3.810	0.574	0.206	-0.001	4.000	0.139	0.213	-0.001	4.120	0.453	0.250	-0.001
3.850	0.219	0.132	0.002	4.000	0.178	0.216	0.000	4.120	0.493	0.241	-0.001
3.850	0.258	0.229	0.002	4.000	0.218	0.220	-0.001	4.120	0.532	0.230	-0.001
3.850	0.298	0.255	0.000	4.000	0.257	0.234	-0.001	4.120	0.571	0.206	-0.002
3.850	0.337	0.267	0.001	4.000	0.297	0.248	-0.001	4.160	0.020	0.158	-0.002
3.850	0.376	0.269	0.002	4.000	0.336	0.258	-0.001	4.160	0.059	0.176	-0.003
3.850	0.416	0.267	0.001	4.000	0.375	0.259	-0.001	4.160	0.099	0.192	-0.002
3.850	0.455	0.262	0.000	4.000	0.415	0.259	-0.002	4.160	0.138	0.207	-0.002
3.850	0.495	0.251	-0.001	4.000	0.454	0.254	-0.002	4.160	0.177	0.211	-0.002
3.850	0.534	0.238	-0.002	4.000	0.493	0.245	-0.002	4.160	0.217	0.217	-0.002
3.850	0.573	0.210	-0.001	4.000	0.533	0.235	-0.001	4.160	0.256	0.230	-0.002
3.890	0.179	0.192	0.003	4.000	0.572	0.203	-0.002	4.160	0.295	0.242	-0.002
3.890	0.219	0.215	-0.001	4.040	0.021	0.148	-0.001	4.160	0.335	0.258	-0.001
3.890	0.258	0.236	0.000	4.040	0.060	0.175	-0.002	4.160	0.374	0.257	-0.002
3.890	0.297	0.256	0.000	4.040	0.099	0.197	0.000	4.160	0.414	0.251	-0.002
3.890	0.337	0.264	0.001	4.040	0.139	0.210	-0.001	4.160	0.453	0.250	-0.001
3.890	0.376	0.266	0.000	4.040	0.178	0.214	-0.001	4.160	0.492	0.242	-0.001
3.890	0.416	0.263	0.000	4.040	0.218	0.217	-0.001	4.160	0.532	0.230	-0.001
3.890	0.455	0.259	-0.001	4.040	0.257	0.228	-0.001	4.160	0.571	0.205	-0.002
3.890	0.494	0.248	-0.002	4.040	0.296	0.243	-0.002	4.200	0.020	0.157	-0.002
3.890	0.534	0.235	-0.001	4.040	0.336	0.258	-0.001	4.200	0.059	0.175	-0.003
3.890	0.573	0.209	-0.001	4.040	0.375	0.259	-0.001	4.200	0.098	0.197	-0.001
3.920	0.100	0.197	0.000	4.040	0.414	0.255	-0.002	4.200	0.138	0.209	-0.002
3.920	0.140	0.211	-0.001	4.040	0.454	0.252	-0.002	4.200	0.177	0.212	-0.001
3.920	0.179	0.218	0.000	4.040	0.493	0.244	-0.002	4.200	0.216	0.221	-0.002
3.920	0.218	0.224	-0.001	4.040	0.533	0.231	-0.002	4.200	0.256	0.229	-0.003
3.920	0.258	0.238	-0.001	4.040	0.572	0.203	-0.001	4.200	0.295	0.241	-0.003
3.920	0.297	0.251	-0.001	4.080	0.020	0.144	-0.001	4.200	0.335	0.257	-0.001
3.920	0.337	0.263	0.000	4.080	0.060	0.172	-0.002	4.200	0.374	0.256	-0.002
3.920	0.376	0.266	0.000	4.080	0.099	0.196	-0.001	4.200	0.413	0.251	-0.002
3.930	0.415	0.264	0.000	4.080	0.139	0.209	-0.001	4.200	0.453	0.251	-0.001
3.930	0.455	0.259	-0.001	4.080	0.178	0.213	-0.001	4.200	0.492	0.245	-0.001
3.930	0.494	0.247	0.000	4.080	0.217	0.215	-0.001	4.200	0.531	0.235	-0.001
3.930	0.533	0.235	-0.001	4.080	0.257	0.225	-0.002	4.200	0.571	0.211	-0.001
3.930	0.573	0.206	-0.002	4.080	0.296	0.243	-0.002	4.240	0.019	0.160	-0.002
3.960	0.021	0.160	-0.001	4.080	0.335	0.257	-0.001	4.240	0.059	0.176	-0.002





4.240	0.098	0.198	0.000	4.360	0.412	0.264	-0.001	4.510	0.184	0.225	-0.002
4.240	0.137	0.209	-0.002	4.360	0.452	0.261	-0.001	4.510	0.223	0.231	-0.002
4.240	0.177	0.214	-0.003	4.360	0.491	0.249	-0.002	4.510	0.263	0.238	-0.002
4.240	0.216	0.222	-0.003	4.360	0.530	0.237	-0.002	4.510	0.302	0.250	-0.003
4.240	0.256	0.233	-0.003	4.360	0.570	0.211	-0.002	4.510	0.341	0.262	-0.001
4.240	0.295	0.244	-0.003	4.400	0.018	0.162	-0.002	4.510	0.381	0.263	0.000
4.240	0.334	0.260	-0.001	4.400	0.058	0.173	-0.002	4.510	0.420	0.254	-0.001
4.240	0.374	0.258	-0.001	4.400	0.136	0.209	-0.001	4.510	0.459	0.248	-0.002
4.240	0.413	0.252	-0.001	4.400	0.176	0.214	-0.001	4.510	0.499	0.241	-0.003
4.240	0.452	0.250	-0.001	4.400	0.215	0.221	-0.001	4.510	0.538	0.231	-0.001
4.240	0.492	0.245	-0.001	4.400	0.254	0.234	-0.002	4.510	0.577	0.178	-0.001
4.240	0.531	0.237	0.000	4.400	0.294	0.250	-0.002	4.550	0.027	0.168	-0.002
4.240	0.571	0.214	-0.001	4.400	0.333	0.263	-0.002	4.550	0.066	0.195	-0.001
4.280	0.019	0.163	-0.002	4.400	0.373	0.264	-0.002	4.550	0.105	0.215	-0.002
4.280	0.058	0.177	-0.002	4.400	0.412	0.259	-0.003	4.550	0.145	0.223	-0.003
4.280	0.098	0.198	0.000	4.400	0.451	0.254	-0.002	4.550	0.184	0.226	-0.003
4.280	0.137	0.211	-0.001	4.400	0.491	0.246	-0.002	4.550	0.223	0.234	-0.002
4.280	0.177	0.219	-0.003	4.400	0.530	0.235	-0.002	4.550	0.262	0.243	-0.003
4.280	0.216	0.226	-0.003	4.400	0.569	0.207	-0.002	4.550	0.302	0.255	-0.003
4.280	0.255	0.238	-0.003	4.440	0.018	0.149	0.000	4.550	0.341	0.262	-0.001
4.280	0.295	0.255	-0.003	4.440	0.057	0.168	-0.001	4.550	0.380	0.258	-0.001
4.280	0.334	0.271	-0.002	4.440	0.097	0.198	0.000	4.550	0.420	0.254	-0.001
4.280	0.373	0.274	-0.001	4.440	0.136	0.211	-0.001	4.550	0.459	0.250	-0.002
4.280	0.413	0.266	-0.001	4.440	0.175	0.214	-0.002	4.550	0.498	0.244	-0.002
4.280	0.452	0.263	-0.001	4.440	0.215	0.216	-0.001	4.550	0.538	0.233	-0.002
4.280	0.492	0.253	-0.001	4.440	0.254	0.227	0.000	4.550	0.577	0.185	0.000
4.280	0.531	0.238	-0.001	4.440	0.294	0.243	-0.002	4.590	0.026	0.171	-0.002
4.280	0.570	0.215	-0.001	4.440	0.333	0.258	-0.002	4.590	0.066	0.197	-0.001
4.320	0.019	0.161	-0.002	4.440	0.372	0.258	-0.003	4.590	0.105	0.217	-0.002
4.320	0.058	0.176	-0.003	4.440	0.412	0.256	-0.001	4.590	0.144	0.226	-0.002
4.320	0.098	0.199	0.000	4.440	0.451	0.252	-0.004	4.590	0.184	0.230	-0.003
4.320	0.137	0.213	-0.001	4.440	0.490	0.241	-0.006	4.590	0.223	0.235	-0.003
4.320	0.176	0.219	-0.002	4.440	0.530	0.233	-0.003	4.590	0.262	0.243	-0.003
4.320	0.216	0.226	-0.003	4.440	0.569	0.210	-0.002	4.590	0.302	0.255	-0.003
4.320	0.255	0.239	-0.004	4.470	0.027	0.167	-0.002	4.590	0.341	0.264	0.000
4.320	0.294	0.255	-0.003	4.470	0.066	0.191	-0.002	4.590	0.380	0.262	-0.001
4.320	0.334	0.275	-0.001	4.470	0.106	0.207	-0.002	4.590	0.420	0.254	-0.002
4.320	0.373	0.276	-0.002	4.470	0.145	0.216	-0.002	4.590	0.459	0.254	-0.001
4.320	0.412	0.271	-0.001	4.470	0.184	0.223	-0.003	4.590	0.498	0.248	-0.002
4.320	0.452	0.265	-0.001	4.470	0.224	0.229	-0.002	4.590	0.538	0.237	-0.002
4.320	0.491	0.254	-0.002	4.470	0.263	0.236	-0.002	4.590	0.577	0.194	0.000
4.320	0.531	0.238	-0.001	4.470	0.302	0.249	-0.004	4.630	0.026	0.173	-0.001
4.320	0.570	0.214	-0.001	4.470	0.342	0.260	-0.002	4.630	0.065	0.198	-0.001
4.360	0.018	0.161	-0.002	4.470	0.381	0.261	-0.001	4.630	0.105	0.217	-0.002
4.360	0.058	0.174	-0.002	4.470	0.420	0.254	-0.002	4.630	0.144	0.224	-0.002
4.360	0.097	0.198	0.000	4.470	0.460	0.248	-0.001	4.630	0.183	0.229	-0.003
4.360	0.137	0.210	-0.001	4.470	0.499	0.241	-0.002	4.630	0.223	0.237	-0.003
4.360	0.176	0.215	-0.002	4.470	0.538	0.227	0.001	4.630	0.262	0.248	-0.003
4.360	0.215	0.224	-0.002	4.470	0.577	0.176	0.000	4.630	0.301	0.258	-0.003
4.360	0.255	0.236	-0.003	4.510	0.027	0.167	-0.001	4.630	0.341	0.266	0.000
4.360	0.294	0.250	-0.002	4.510	0.066	0.191	-0.002	4.630	0.380	0.267	0.001
4.360	0.333	0.270	-0.001	4.510	0.105	0.210	-0.001	4.630	0.419	0.261	-0.001
4.360	0.373	0.268	-0.001	4.510	0.145	0.221	-0.002	4.630	0.459	0.255	-0.001





4.630	0.498	0.250	-0.001	4.790	0.261	0.254	-0.001	4.910	0.221	0.249	-0.004
4.630	0.537	0.242	-0.002	4.790	0.301	0.264	-0.001	4.940	0.064	0.215	0.000
4.630	0.577	0.197	0.000	4.790	0.340	0.273	0.001	4.940	0.103	0.230	-0.002
4.670	0.026	0.176	-0.001	4.790	0.379	0.271	-0.001	4.940	0.143	0.234	-0.003
4.670	0.065	0.198	-0.001	4.790	0.419	0.266	0.001	4.940	0.182	0.238	-0.003
4.670	0.105	0.219	-0.002	4.790	0.458	0.263	-0.001	4.940	0.221	0.247	-0.003
4.670	0.144	0.226	-0.003	4.790	0.497	0.258	-0.001	4.940	0.261	0.257	-0.002
4.670	0.183	0.230	-0.002	4.790	0.537	0.247	-0.001	4.940	0.300	0.268	0.000
4.670	0.223	0.241	-0.004	4.790	0.576	0.212	-0.001	4.940	0.339	0.279	-0.001
4.670	0.262	0.251	-0.003	4.820	0.576	0.212	-0.001	4.940	0.379	0.277	0.000
4.670	0.301	0.262	-0.001	4.830	0.025	0.192	-0.001	4.940	0.418	0.270	0.000
4.670	0.341	0.272	0.000	4.830	0.064	0.204	-0.001	4.940	0.457	0.263	0.000
4.670	0.380	0.270	0.001	4.830	0.104	0.229	-0.002	4.940	0.496	0.260	0.001
4.670	0.459	0.255	-0.001	4.830	0.143	0.236	-0.003	4.940	0.536	0.248	-0.002
4.670	0.498	0.249	-0.002	4.830	0.182	0.238	-0.004	4.940	0.575	0.216	-0.001
4.670	0.537	0.244	-0.003	4.830	0.222	0.247	-0.004	4.950	0.025	0.203	0.000
4.670	0.577	0.198	-0.001	4.830	0.261	0.256	-0.002	4.980	0.024	0.204	0.000
4.710	0.026	0.182	0.000	4.830	0.300	0.264	-0.001	4.980	0.064	0.217	-0.001
4.710	0.065	0.202	0.000	4.830	0.340	0.275	0.001	4.980	0.103	0.231	-0.002
4.710	0.104	0.220	-0.002	4.830	0.379	0.276	0.002	4.980	0.142	0.238	-0.003
4.710	0.144	0.227	-0.003	4.830	0.418	0.272	0.001	4.980	0.182	0.240	-0.002
4.710	0.183	0.230	-0.003	4.830	0.458	0.267	0.000	4.980	0.221	0.246	-0.002
4.710	0.222	0.245	-0.004	4.830	0.497	0.257	-0.001	4.980	0.260	0.259	-0.001
4.710	0.262	0.256	-0.003	4.830	0.536	0.246	-0.001	4.980	0.300	0.266	0.000
4.710	0.301	0.265	-0.001	4.860	0.418	0.273	0.000	4.980	0.339	0.276	0.000
4.710	0.340	0.274	0.001	4.860	0.458	0.269	0.000	4.980	0.378	0.276	0.000
4.710	0.380	0.275	0.001	4.860	0.497	0.261	0.000	4.980	0.418	0.272	0.000
4.710	0.419	0.268	0.001	4.860	0.536	0.247	-0.002	4.980	0.457	0.267	0.000
4.710	0.458	0.261	-0.001	4.860	0.576	0.216	-0.001	4.980	0.496	0.263	0.001
4.710	0.498	0.249	-0.002	4.870	0.025	0.198	0.000	4.980	0.536	0.249	-0.002
4.710	0.537	0.242	-0.003	4.870	0.064	0.210	-0.001	4.980	0.575	0.218	-0.001
4.710	0.576	0.203	-0.001	4.870	0.104	0.224	-0.002	5.020	0.024	0.206	0.000
4.750	0.026	0.186	-0.001	4.870	0.143	0.236	-0.003	5.020	0.064	0.215	0.000
4.750	0.065	0.202	0.000	4.870	0.182	0.239	-0.004	5.020	0.103	0.230	-0.002
4.750	0.104	0.224	-0.002	4.870	0.222	0.249	-0.003	5.020	0.142	0.239	-0.002
4.750	0.144	0.230	-0.002	4.870	0.261	0.258	-0.002	5.020	0.181	0.242	-0.002
4.750	0.183	0.232	-0.003	4.870	0.300	0.265	-0.001	5.020	0.221	0.248	-0.002
4.750	0.222	0.245	-0.002	4.870	0.340	0.280	0.000	5.020	0.260	0.258	-0.001
4.750	0.262	0.254	-0.003	4.870	0.379	0.279	0.002	5.020	0.299	0.269	-0.001
4.750	0.301	0.264	0.000	4.900	0.261	0.257	-0.002	5.020	0.339	0.281	0.000
4.750	0.340	0.274	0.000	4.900	0.300	0.267	-0.001	5.020	0.378	0.280	0.000
4.750	0.379	0.270	0.000	4.900	0.339	0.278	-0.001	5.020	0.417	0.272	-0.001
4.750	0.419	0.269	0.000	4.900	0.379	0.278	-0.001	5.020	0.457	0.264	-0.001
4.750	0.458	0.263	-0.001	4.900	0.418	0.271	0.001	5.020	0.496	0.259	-0.001
4.750	0.497	0.255	-0.001	4.900	0.457	0.267	0.000	5.020	0.535	0.248	-0.002
4.750	0.537	0.245	-0.001	4.900	0.497	0.261	0.000	5.020	0.575	0.221	-0.001
4.750	0.576	0.210	-0.001	4.900	0.536	0.249	-0.002	5.060	0.024	0.210	0.000
4.790	0.025	0.191	-0.001	4.900	0.575	0.218	-0.001	5.060	0.063	0.218	0.000
4.790	0.065	0.204	-0.001	4.910	0.025	0.201	0.000	5.060	0.103	0.232	-0.002
4.790	0.104	0.225	-0.001	4.910	0.064	0.212	0.000	5.060	0.142	0.239	-0.003
4.790	0.143	0.233	-0.002	4.910	0.103	0.227	-0.002	5.060	0.181	0.243	-0.002
4.790	0.183	0.235	-0.004	4.910	0.143	0.235	-0.003	5.060	0.221	0.251	-0.003
4.790	0.222	0.244	-0.003	4.910	0.182	0.238	-0.003	5.060	0.260	0.259	-0.001





5.060	0.299	0.270	-0.001	5.220	0.023	0.206	-0.002	5.340	0.337	0.281	-0.001
5.060	0.339	0.281	0.000	5.220	0.063	0.218	-0.001	5.340	0.377	0.283	-0.002
5.060	0.378	0.280	-0.001	5.220	0.102	0.241	-0.002	5.340	0.416	0.283	-0.001
5.060	0.417	0.278	-0.001	5.220	0.141	0.247	-0.003	5.340	0.455	0.276	0.000
5.060	0.457	0.269	0.000	5.220	0.181	0.250	-0.004	5.340	0.495	0.267	-0.001
5.060	0.496	0.259	0.000	5.220	0.220	0.258	-0.003	5.340	0.534	0.256	-0.002
5.060	0.535	0.247	-0.002	5.220	0.259	0.268	-0.002	5.340	0.573	0.225	-0.002
5.060	0.575	0.219	-0.002	5.220	0.298	0.278	-0.002	5.380	0.022	0.205	0.000
5.100	0.024	0.208	0.000	5.220	0.338	0.283	-0.001	5.380	0.062	0.216	-0.001
5.100	0.063	0.218	0.000	5.220	0.377	0.284	0.000	5.380	0.101	0.239	-0.002
5.100	0.102	0.233	-0.002	5.220	0.416	0.281	-0.001	5.380	0.140	0.248	-0.002
5.100	0.142	0.238	-0.003	5.220	0.456	0.274	-0.001	5.380	0.180	0.250	-0.003
5.100	0.181	0.243	-0.004	5.220	0.495	0.268	0.000	5.380	0.219	0.262	-0.001
5.100	0.220	0.249	-0.003	5.220	0.534	0.257	-0.002	5.380	0.258	0.267	-0.001
5.100	0.260	0.261	-0.002	5.220	0.574	0.224	-0.002	5.380	0.298	0.271	-0.001
5.100	0.299	0.270	-0.001	5.260	0.023	0.197	-0.001	5.380	0.337	0.277	-0.001
5.100	0.338	0.280	0.000	5.260	0.062	0.212	-0.001	5.380	0.376	0.281	-0.002
5.100	0.378	0.283	-0.001	5.260	0.102	0.240	-0.002	5.380	0.416	0.274	-0.002
5.100	0.417	0.278	0.000	5.260	0.141	0.250	-0.003	5.380	0.455	0.269	0.000
5.100	0.456	0.271	-0.001	5.260	0.180	0.254	-0.003	5.380	0.494	0.266	0.000
5.100	0.496	0.266	-0.001	5.260	0.220	0.259	-0.002	5.380	0.534	0.253	-0.002
5.100	0.535	0.252	-0.002	5.260	0.259	0.267	-0.001	5.380	0.573	0.224	-0.002
5.100	0.574	0.223	-0.002	5.260	0.298	0.273	-0.002	5.420	0.022	0.209	0.000
5.140	0.024	0.208	-0.001	5.260	0.338	0.277	-0.001	5.420	0.062	0.218	-0.001
5.140	0.063	0.217	-0.001	5.260	0.377	0.283	0.000	5.420	0.101	0.240	-0.002
5.140	0.102	0.234	-0.002	5.260	0.416	0.282	-0.001	5.420	0.140	0.246	-0.002
5.140	0.142	0.241	-0.003	5.260	0.456	0.277	-0.001	5.420	0.180	0.249	-0.002
5.140	0.181	0.245	-0.004	5.260	0.495	0.271	0.000	5.420	0.219	0.263	-0.002
5.140	0.220	0.253	-0.003	5.260	0.534	0.259	-0.001	5.420	0.258	0.266	-0.002
5.140	0.260	0.262	-0.002	5.260	0.574	0.223	-0.001	5.420	0.298	0.272	-0.001
5.140	0.299	0.269	-0.001	5.300	0.023	0.204	-0.001	5.420	0.337	0.276	-0.001
5.140	0.338	0.281	-0.001	5.300	0.062	0.215	-0.001	5.420	0.376	0.277	-0.001
5.140	0.378	0.282	-0.001	5.300	0.101	0.243	-0.002	5.420	0.416	0.273	-0.003
5.140	0.417	0.277	0.000	5.300	0.141	0.251	-0.003	5.420	0.455	0.263	0.000
5.140	0.456	0.275	0.000	5.300	0.180	0.250	-0.004	5.420	0.494	0.261	-0.001
5.140	0.496	0.267	0.000	5.300	0.219	0.256	-0.003	5.420	0.533	0.248	-0.001
5.140	0.535	0.251	-0.002	5.300	0.259	0.264	-0.001	5.420	0.573	0.219	-0.002
5.140	0.574	0.223	-0.002	5.300	0.298	0.274	-0.001	5.460	0.022	0.213	0.000
5.180	0.023	0.212	-0.001	5.300	0.337	0.280	-0.001	5.460	0.061	0.220	-0.001
5.180	0.063	0.220	-0.001	5.300	0.377	0.281	-0.001	5.460	0.101	0.237	-0.002
5.180	0.102	0.237	-0.002	5.300	0.416	0.279	-0.001	5.460	0.140	0.246	-0.002
5.180	0.141	0.245	-0.003	5.300	0.455	0.273	-0.001	5.460	0.179	0.247	-0.002
5.180	0.181	0.248	-0.003	5.300	0.495	0.265	-0.001	5.460	0.219	0.255	-0.002
5.180	0.220	0.254	-0.003	5.300	0.534	0.257	-0.001	5.460	0.258	0.261	-0.002
5.180	0.259	0.266	-0.001	5.300	0.573	0.225	-0.002	5.460	0.297	0.272	-0.001
5.180	0.299	0.275	-0.001	5.340	0.023	0.208	0.000	5.460	0.337	0.276	-0.002
5.180	0.338	0.280	0.000	5.340	0.062	0.217	-0.001	5.460	0.376	0.276	-0.002
5.180	0.377	0.283	-0.001	5.340	0.101	0.239	-0.002	5.460	0.415	0.269	-0.001
5.180	0.417	0.280	-0.001	5.340	0.141	0.247	-0.002	5.460	0.455	0.264	-0.001
5.180	0.456	0.274	0.000	5.340	0.180	0.252	-0.003	5.460	0.494	0.259	-0.001
5.180	0.495	0.269	0.001	5.340	0.219	0.261	-0.001	5.460	0.533	0.244	-0.003
5.180	0.535	0.255	-0.002	5.340	0.259	0.266	0.000	5.460	0.573	0.217	-0.001
5.180	0.574	0.222	-0.002	5.340	0.298	0.275	0.000	5.500	0.022	0.215	0.000





5.500	0.061	0.221	0.000	5.620	0.375	0.266	-0.003	5.760	0.339	0.284	-0.003
5.500	0.101	0.239	-0.002	5.620	0.415	0.260	-0.003	5.760	0.379	0.276	-0.002
5.500	0.140	0.246	-0.002	5.620	0.454	0.263	-0.001	5.760	0.418	0.277	-0.001
5.500	0.179	0.247	-0.002	5.620	0.493	0.254	-0.001	5.800	0.025	0.226	-0.002
5.500	0.218	0.251	-0.001	5.620	0.533	0.241	-0.002	5.800	0.064	0.245	-0.001
5.500	0.258	0.261	-0.002	5.620	0.572	0.219	-0.001	5.800	0.103	0.262	-0.001
5.500	0.297	0.272	-0.002	5.660	0.021	0.219	-0.001	5.800	0.143	0.258	-0.001
5.500	0.336	0.277	-0.001	5.660	0.060	0.227	-0.002	5.800	0.182	0.259	-0.002
5.500	0.376	0.273	-0.003	5.660	0.100	0.242	-0.002	5.800	0.221	0.264	-0.002
5.500	0.415	0.270	-0.002	5.660	0.139	0.247	-0.003	5.800	0.261	0.271	-0.001
5.500	0.454	0.266	0.000	5.660	0.178	0.247	-0.003	5.800	0.300	0.280	-0.002
5.500	0.494	0.259	-0.001	5.660	0.218	0.251	-0.003	5.800	0.339	0.292	-0.008
5.500	0.533	0.245	-0.003	5.660	0.257	0.260	-0.002	5.800	0.379	0.169	-0.003
5.500	0.572	0.220	-0.001	5.660	0.296	0.268	-0.002	5.840	0.025	0.235	-0.001
5.540	0.022	0.217	-0.001	5.660	0.336	0.273	-0.003	5.840	0.064	0.251	-0.002
5.540	0.061	0.223	-0.001	5.660	0.375	0.268	-0.003	5.840	0.103	0.263	-0.001
5.540	0.100	0.239	-0.001	5.660	0.414	0.263	-0.003	5.840	0.143	0.271	-0.001
5.540	0.140	0.245	-0.002	5.660	0.454	0.263	-0.002	5.840	0.182	0.272	-0.002
5.540	0.179	0.246	-0.003	5.660	0.493	0.255	-0.002	5.840	0.221	0.277	-0.002
5.540	0.218	0.250	-0.001	5.660	0.532	0.244	-0.002	5.840	0.261	0.280	-0.003
5.540	0.258	0.259	-0.003	5.660	0.572	0.223	-0.001	5.840	0.300	0.286	-0.003
5.540	0.297	0.273	-0.001	5.700	0.021	0.222	-0.001	5.840	0.339	0.236	-0.010
5.540	0.336	0.273	-0.001	5.700	0.060	0.229	-0.002	5.880	0.025	0.236	-0.001
5.540	0.376	0.272	-0.002	5.700	0.100	0.242	-0.002	5.880	0.064	0.248	-0.002
5.540	0.415	0.269	-0.001	5.700	0.139	0.250	-0.002	5.880	0.103	0.269	-0.001
5.540	0.454	0.262	-0.001	5.700	0.178	0.250	-0.003	5.880	0.143	0.277	-0.001
5.540	0.494	0.254	-0.001	5.700	0.218	0.254	-0.002	5.880	0.182	0.278	-0.003
5.540	0.533	0.241	-0.003	5.700	0.257	0.263	-0.003	5.880	0.221	0.278	-0.004
5.540	0.572	0.222	-0.002	5.700	0.296	0.270	-0.003	5.880	0.261	0.282	-0.004
5.580	0.021	0.218	-0.001	5.700	0.335	0.271	-0.003	5.880	0.300	0.271	-0.005
5.580	0.061	0.223	-0.001	5.700	0.375	0.270	-0.004	5.920	0.025	0.241	-0.001
5.580	0.100	0.237	-0.002	5.700	0.414	0.260	0.001	5.920	0.064	0.255	0.000
5.580	0.139	0.244	-0.002	5.700	0.453	0.250	-0.002	5.920	0.103	0.272	0.000
5.580	0.179	0.246	-0.002	5.700	0.493	0.224	0.008	5.920	0.143	0.276	-0.002
5.580	0.218	0.251	-0.003	5.700	0.532	0.239	-0.003	5.920	0.182	0.280	-0.004
5.580	0.257	0.258	-0.002	5.700	0.571	0.201	-0.003	5.920	0.221	0.287	-0.004
5.580	0.297	0.271	-0.002	5.740	0.021	0.234	-0.005	5.920	0.261	0.297	-0.006
5.580	0.336	0.272	-0.001	5.740	0.060	0.240	-0.005	5.920	0.300	0.274	-0.009
5.580	0.375	0.268	-0.002	5.740	0.099	0.248	-0.004	5.960	0.025	0.240	0.000
5.580	0.415	0.263	-0.003	5.740	0.139	0.258	-0.005	5.960	0.064	0.254	0.000
5.580	0.454	0.262	-0.001	5.740	0.178	0.265	-0.001	5.960	0.103	0.283	-0.001
5.580	0.493	0.253	-0.001	5.740	0.217	0.266	-0.003	5.960	0.143	0.283	-0.003
5.580	0.533	0.240	-0.003	5.740	0.296	0.259	0.002	5.960	0.182	0.282	-0.003
5.580	0.572	0.219	-0.002	5.740	0.335	0.259	-0.004	5.960	0.221	0.289	-0.002
5.620	0.021	0.218	-0.001	5.740	0.375	0.250	-0.001	5.960	0.261	0.290	-0.005
5.620	0.061	0.225	-0.001	5.760	0.025	0.219	-0.002	5.960	0.300	0.149	-0.009
5.620	0.100	0.240	-0.002	5.760	0.064	0.245	-0.002	6.000	0.025	0.241	-0.001
5.620	0.139	0.246	-0.002	5.760	0.103	0.259	-0.001	6.000	0.064	0.263	0.000
5.620	0.179	0.247	-0.002	5.760	0.143	0.259	0.000	6.000	0.103	0.293	-0.001
5.620	0.218	0.251	-0.002	5.760	0.182	0.258	0.000	6.000	0.143	0.294	-0.002
5.620	0.257	0.257	-0.003	5.760	0.221	0.267	-0.002	6.000	0.182	0.298	-0.002
5.620	0.297	0.268	-0.003	5.760	0.261	0.271	-0.002	6.000	0.221	0.295	-0.005
5.620	0.336	0.270	-0.003	5.760	0.300	0.275	-0.003	6.000	0.261	0.275	-0.015





6.040	0.025	0.256	0.001	6.270	0.261	0.288	-0.002	6.390	0.575	0.196	0.000
6.040	0.064	0.270	0.001	6.270	0.300	0.292	-0.001	6.430	0.025	0.257	0.000
6.040	0.103	0.290	0.000	6.270	0.339	0.270	-0.007	6.430	0.064	0.274	0.001
6.040	0.143	0.295	-0.002	6.270	0.379	0.257	-0.002	6.430	0.103	0.284	0.000
6.040	0.182	0.300	-0.002	6.270	0.418	0.237	-0.001	6.430	0.143	0.283	-0.001
6.040	0.221	0.291	-0.008	6.270	0.457	0.007	-0.002	6.430	0.182	0.290	-0.001
6.040	0.261	0.265	-0.020	6.280	0.025	0.257	0.000	6.430	0.221	0.292	0.000
6.040	0.300	0.142	-0.004	6.280	0.064	0.274	-0.001	6.430	0.261	0.291	-0.002
6.080	0.025	0.257	0.001	6.280	0.103	0.293	0.000	6.430	0.300	0.288	-0.005
6.080	0.064	0.275	0.000	6.310	0.025	0.249	0.001	6.430	0.339	0.284	-0.003
6.080	0.103	0.292	0.000	6.310	0.064	0.273	0.000	6.430	0.379	0.257	-0.001
6.080	0.143	0.292	-0.002	6.310	0.103	0.286	0.000	6.430	0.418	0.251	-0.001
6.080	0.182	0.287	-0.006	6.310	0.143	0.288	-0.001	6.430	0.457	0.242	0.000
6.080	0.221	0.276	-0.007	6.310	0.182	0.288	-0.003	6.430	0.497	0.233	0.000
6.080	0.261	0.276	-0.011	6.310	0.221	0.291	-0.002	6.430	0.536	0.227	0.000
6.080	0.300	0.098	-0.005	6.310	0.261	0.292	-0.001	6.430	0.575	0.184	-0.001
6.120	0.025	0.252	0.000	6.310	0.300	0.291	-0.001	6.470	0.025	0.248	0.001
6.120	0.064	0.270	-0.001	6.310	0.339	0.280	-0.002	6.470	0.064	0.265	0.001
6.120	0.103	0.284	-0.003	6.310	0.379	0.271	-0.001	6.470	0.103	0.286	0.000
6.120	0.143	0.286	-0.005	6.310	0.418	0.258	-0.002	6.470	0.143	0.288	0.000
6.120	0.182	0.288	-0.008	6.310	0.457	0.218	-0.007	6.470	0.182	0.286	0.000
6.120	0.221	0.276	-0.013	6.310	0.497	0.109	-0.007	6.470	0.221	0.290	0.000
6.120	0.261	0.287	-0.003	6.310	0.536	0.054	-0.005	6.470	0.261	0.294	-0.004
6.120	0.300	0.280	-0.008	6.310	0.575	0.184	-0.005	6.470	0.300	0.295	-0.005
6.160	0.025	0.261	0.001	6.350	0.025	0.252	0.000	6.470	0.339	0.279	-0.002
6.160	0.103	0.285	-0.001	6.350	0.064	0.273	0.000	6.470	0.379	0.257	-0.003
6.160	0.143	0.288	-0.004	6.350	0.103	0.282	0.000	6.470	0.418	0.251	0.000
6.160	0.182	0.294	-0.005	6.350	0.143	0.284	0.000	6.470	0.457	0.242	-0.001
6.160	0.221	0.290	-0.005	6.350	0.182	0.288	-0.001	6.470	0.497	0.232	-0.001
6.160	0.261	0.286	-0.004	6.350	0.221	0.286	-0.002	6.470	0.536	0.219	-0.001
6.160	0.300	0.287	-0.004	6.350	0.261	0.293	-0.001	6.470	0.575	0.181	-0.002
6.160	0.339	0.013	-0.001	6.350	0.300	0.288	-0.001	6.510	0.025	0.257	0.000
6.200	0.025	0.258	0.001	6.350	0.339	0.280	-0.002	6.510	0.064	0.267	0.000
6.200	0.064	0.276	0.000	6.350	0.379	0.268	-0.001	6.510	0.103	0.284	0.001
6.200	0.103	0.288	-0.001	6.350	0.418	0.255	-0.002	6.510	0.143	0.288	0.000
6.200	0.143	0.281	-0.004	6.350	0.457	0.247	-0.005	6.510	0.182	0.289	0.000
6.200	0.182	0.288	-0.001	6.350	0.497	0.217	-0.013	6.510	0.221	0.292	0.000
6.200	0.221	0.288	-0.004	6.350	0.536	0.159	-0.016	6.510	0.261	0.297	-0.001
6.200	0.261	0.296	-0.004	6.350	0.575	0.190	0.000	6.510	0.300	0.290	0.000
6.200	0.300	0.293	-0.002	6.390	0.025	0.257	-0.001	6.510	0.379	0.259	-0.003
6.200	0.339	0.267	-0.002	6.390	0.064	0.272	0.000	6.510	0.418	0.255	0.000
6.230	0.300	0.290	-0.001	6.390	0.103	0.284	0.000	6.510	0.457	0.245	-0.001
6.230	0.339	0.277	-0.002	6.390	0.143	0.287	0.001	6.510	0.497	0.231	-0.001
6.230	0.379	0.259	0.000	6.390	0.182	0.295	0.000	6.510	0.536	0.224	-0.001
6.240	0.064	0.272	0.000	6.390	0.221	0.297	0.000	6.510	0.575	0.174	0.000
6.240	0.103	0.283	0.000	6.390	0.261	0.289	-0.005	6.550	0.025	0.256	0.001
6.240	0.143	0.287	-0.001	6.390	0.300	0.286	-0.005	6.550	0.064	0.264	0.002
6.240	0.182	0.282	-0.005	6.390	0.339	0.275	-0.002	6.550	0.103	0.277	0.001
6.240	0.221	0.287	-0.003	6.390	0.379	0.260	-0.003	6.550	0.143	0.280	0.000
6.240	0.261	0.287	-0.005	6.390	0.418	0.248	-0.003	6.550	0.182	0.284	0.001
6.270	0.143	0.293	0.000	6.390	0.457	0.242	-0.004	6.550	0.221	0.287	0.000
6.270	0.182	0.286	-0.003	6.390	0.497	0.233	-0.001	6.550	0.261	0.291	-0.001
6.270	0.221	0.291	-0.006	6.390	0.536	0.224	0.000	6.550	0.300	0.288	-0.001





6.550	0.339	0.272	-0.001	6.710	0.025	0.241	0.001	6.820	0.457	0.237	-0.001
6.550	0.379	0.256	-0.002	6.710	0.064	0.257	0.001	6.820	0.497	0.232	-0.002
6.550	0.418	0.248	-0.001	6.710	0.103	0.281	0.000	6.820	0.536	0.210	0.000
6.550	0.457	0.241	-0.001	6.710	0.143	0.283	0.001	6.820	0.575	0.186	-0.001
6.550	0.497	0.233	-0.001	6.710	0.182	0.286	0.002	6.830	0.025	0.235	0.002
6.550	0.536	0.219	0.000	6.710	0.221	0.291	0.001	6.830	0.064	0.249	0.002
6.550	0.575	0.180	0.000	6.710	0.261	0.293	0.002	6.860	0.025	0.240	0.001
6.590	0.025	0.259	0.002	6.710	0.300	0.289	0.003	6.860	0.064	0.257	0.001
6.590	0.064	0.267	0.001	6.710	0.339	0.282	0.001	6.860	0.103	0.279	0.001
6.590	0.103	0.282	-0.001	6.710	0.379	0.269	0.001	6.860	0.143	0.280	0.001
6.590	0.143	0.282	0.000	6.710	0.418	0.252	-0.001	6.860	0.182	0.281	0.002
6.590	0.182	0.286	0.001	6.710	0.457	0.241	-0.002	6.860	0.221	0.279	0.003
6.590	0.221	0.288	0.000	6.710	0.497	0.234	-0.003	6.860	0.261	0.280	0.003
6.590	0.261	0.291	-0.002	6.710	0.536	0.217	-0.001	6.860	0.300	0.280	0.002
6.590	0.300	0.286	-0.002	6.740	0.418	0.247	-0.003	6.860	0.339	0.271	0.002
6.590	0.339	0.268	-0.001	6.740	0.457	0.238	-0.004	6.860	0.379	0.257	0.000
6.590	0.379	0.256	-0.002	6.740	0.497	0.235	-0.002	6.860	0.418	0.234	-0.001
6.590	0.418	0.246	-0.001	6.740	0.536	0.216	-0.001	6.860	0.457	0.231	0.001
6.590	0.457	0.247	-0.001	6.740	0.575	0.188	-0.001	6.860	0.497	0.232	0.000
6.590	0.497	0.235	-0.001	6.750	0.025	0.239	0.000	6.860	0.536	0.213	0.000
6.590	0.536	0.223	-0.001	6.750	0.064	0.253	-0.001	6.860	0.575	0.187	-0.001
6.590	0.575	0.196	0.001	6.750	0.103	0.277	0.001	6.900	0.025	0.242	0.000
6.630	0.025	0.254	0.001	6.750	0.143	0.282	0.001	6.900	0.064	0.259	0.002
6.630	0.064	0.266	0.001	6.750	0.182	0.282	0.003	6.900	0.103	0.278	0.002
6.630	0.103	0.285	0.001	6.750	0.221	0.287	0.002	6.900	0.143	0.279	0.002
6.630	0.143	0.283	0.001	6.750	0.261	0.288	0.003	6.900	0.182	0.279	0.002
6.630	0.182	0.284	0.000	6.750	0.300	0.284	0.004	6.900	0.221	0.281	0.003
6.630	0.221	0.290	-0.001	6.750	0.339	0.275	0.003	6.900	0.261	0.280	0.002
6.630	0.261	0.293	-0.001	6.750	0.379	0.265	0.001	6.900	0.300	0.279	0.001
6.630	0.300	0.289	0.001	6.780	0.261	0.284	0.001	6.900	0.339	0.275	0.003
6.630	0.339	0.282	0.001	6.780	0.300	0.282	0.002	6.900	0.379	0.252	0.000
6.630	0.379	0.266	0.001	6.780	0.339	0.278	0.002	6.900	0.418	0.239	-0.001
6.630	0.418	0.249	0.000	6.780	0.379	0.258	0.000	6.900	0.457	0.232	0.001
6.630	0.457	0.245	-0.001	6.780	0.418	0.247	-0.001	6.900	0.497	0.231	0.000
6.630	0.497	0.238	-0.002	6.780	0.457	0.239	-0.003	6.900	0.536	0.209	0.000
6.630	0.536	0.224	-0.001	6.780	0.497	0.234	-0.002	6.900	0.575	0.188	0.000
6.630	0.575	0.195	0.000	6.780	0.536	0.214	-0.001	6.940	0.025	0.242	0.001
6.670	0.025	0.251	0.001	6.780	0.575	0.188	-0.002	6.940	0.064	0.255	0.001
6.670	0.064	0.264	0.002	6.790	0.025	0.237	0.000	6.940	0.103	0.276	0.002
6.670	0.103	0.289	0.001	6.790	0.064	0.252	0.000	6.940	0.143	0.281	0.002
6.670	0.143	0.286	0.001	6.790	0.103	0.278	0.002	6.940	0.182	0.283	0.003
6.670	0.182	0.283	0.000	6.790	0.143	0.281	0.002	6.940	0.221	0.284	0.002
6.670	0.221	0.293	0.000	6.790	0.182	0.282	0.003	6.940	0.261	0.283	0.003
6.670	0.261	0.296	0.001	6.790	0.221	0.283	0.003	6.940	0.300	0.277	0.001
6.670	0.300	0.287	0.002	6.820	0.103	0.270	0.002	6.940	0.339	0.262	0.002
6.670	0.339	0.278	0.001	6.820	0.143	0.274	0.002	6.940	0.379	0.243	-0.001
6.670	0.379	0.262	0.001	6.820	0.182	0.276	0.002	6.940	0.418	0.243	-0.001
6.670	0.418	0.256	-0.001	6.820	0.221	0.282	0.002	6.940	0.457	0.232	0.000
6.670	0.457	0.244	0.000	6.820	0.261	0.287	0.002	6.940	0.497	0.227	0.001
6.670	0.497	0.239	-0.004	6.820	0.300	0.278	0.003	6.940	0.536	0.211	0.000
6.670	0.536	0.218	-0.002	6.820	0.339	0.270	0.004	6.940	0.575	0.186	0.000
6.670	0.575	0.194	0.000	6.820	0.379	0.255	0.002				
6.700	0.575	0.190	-0.001	6.820	0.418	0.240	0.001				





# Vegetation Density 0.04%

X	Y	V <sub>x</sub>	V <sub>y</sub>	X	Y	V <sub>x</sub>	V <sub>y</sub>	X	Y	V <sub>x</sub>	V <sub>y</sub>
0.440	0.036	0.226	-0.004	0.570	0.272	0.305	-0.002	0.690	0.507	0.292	-0.003
0.450	0.076	0.260	-0.006	0.570	0.311	0.317	-0.005	0.690	0.546	0.278	-0.002
0.450	0.115	0.277	-0.004	0.570	0.351	0.316	-0.003	0.690	0.586	0.206	-0.002
0.450	0.155	0.280	-0.005	0.570	0.390	0.310	-0.007	0.720	0.032	0.241	-0.005
0.450	0.194	0.285	-0.007	0.570	0.430	0.316	-0.005	0.720	0.071	0.275	-0.004
0.450	0.234	0.285	-0.005	0.570	0.469	0.296	-0.003	0.720	0.111	0.287	-0.005
0.450	0.273	0.282	-0.004	0.570	0.509	0.303	-0.003	0.720	0.150	0.287	-0.005
0.450	0.313	0.274	-0.003	0.570	0.548	0.289	-0.002	0.730	0.190	0.286	-0.005
0.450	0.353	0.286	-0.005	0.570	0.588	0.233	-0.002	0.730	0.229	0.294	-0.005
0.450	0.392	0.293	-0.005	0.600	0.034	0.241	-0.004	0.730	0.269	0.298	-0.004
0.450	0.432	0.293	-0.005	0.600	0.073	0.269	-0.004	0.730	0.308	0.301	-0.004
0.450	0.471	0.294	-0.003	0.600	0.113	0.294	-0.005	0.730	0.348	0.302	-0.003
0.450	0.511	0.274	-0.002	0.610	0.152	0.297	-0.005	0.730	0.388	0.307	-0.003
0.450	0.550	0.265	-0.002	0.610	0.192	0.304	-0.006	0.730	0.427	0.310	-0.002
0.450	0.590	0.230	-0.002	0.610	0.231	0.303	-0.005	0.730	0.467	0.280	-0.002
0.480	0.035	0.235	-0.005	0.610	0.271	0.302	-0.004	0.730	0.506	0.309	-0.003
0.480	0.075	0.272	-0.006	0.610	0.310	0.305	-0.001	0.730	0.546	0.281	-0.003
0.490	0.115	0.281	-0.005	0.610	0.350	0.305	-0.002	0.730	0.585	0.220	-0.002
0.490	0.154	0.289	-0.005	0.610	0.390	0.305	-0.005	0.760	0.031	0.240	-0.005
0.490	0.194	0.296	-0.005	0.610	0.429	0.311	-0.002	0.760	0.070	0.276	-0.005
0.490	0.233	0.296	-0.004	0.610	0.469	0.294	-0.003	0.760	0.110	0.286	-0.005
0.490	0.273	0.295	-0.004	0.610	0.508	0.302	-0.002	0.760	0.150	0.293	-0.005
0.490	0.312	0.296	-0.005	0.610	0.548	0.275	-0.003	0.770	0.189	0.294	-0.005
0.490	0.352	0.300	-0.004	0.610	0.587	0.220	-0.002	0.770	0.229	0.297	-0.004
0.490	0.391	0.301	-0.006	0.640	0.033	0.243	-0.004	0.770	0.268	0.301	-0.005
0.490	0.431	0.297	-0.004	0.640	0.072	0.264	-0.004	0.770	0.308	0.299	-0.005
0.490	0.471	0.281	-0.002	0.640	0.112	0.285	-0.004	0.770	0.347	0.304	-0.004
0.490	0.510	0.293	-0.002	0.650	0.152	0.290	-0.005	0.770	0.387	0.308	-0.004
0.490	0.550	0.275	-0.002	0.650	0.191	0.294	-0.004	0.770	0.427	0.309	-0.004
0.490	0.589	0.228	-0.002	0.650	0.231	0.299	-0.005	0.770	0.466	0.310	-0.003
0.520	0.035	0.241	-0.005	0.650	0.270	0.297	-0.004	0.770	0.506	0.289	-0.004
0.520	0.074	0.276	-0.005	0.650	0.310	0.298	-0.003	0.770	0.545	0.280	-0.004
0.530	0.114	0.292	-0.005	0.650	0.349	0.300	-0.003	0.770	0.585	0.216	-0.003
0.530	0.153	0.295	-0.005	0.650	0.389	0.248	-0.001	0.800	0.030	0.240	-0.005
0.530	0.193	0.298	-0.004	0.650	0.428	0.280	0.000	0.800	0.070	0.280	-0.005
0.530	0.233	0.294	-0.004	0.650	0.468	0.285	-0.003	0.800	0.109	0.288	-0.004
0.530	0.272	0.300	-0.005	0.650	0.508	0.260	-0.001	0.800	0.149	0.291	-0.006
0.530	0.312	0.310	-0.005	0.650	0.547	0.268	-0.003	0.800	0.189	0.296	-0.005
0.530	0.351	0.311	-0.004	0.650	0.587	0.214	-0.002	0.810	0.228	0.300	-0.005
0.530	0.391	0.308	-0.006	0.680	0.032	0.243	-0.004	0.810	0.268	0.299	-0.007
0.530	0.430	0.307	-0.004	0.680	0.072	0.266	-0.004	0.810	0.307	0.304	-0.006
0.530	0.470	0.306	-0.003	0.680	0.111	0.285	-0.004	0.810	0.347	0.311	-0.005
0.530	0.509	0.294	-0.002	0.680	0.151	0.294	-0.005	0.810	0.386	0.310	-0.004
0.530	0.549	0.280	-0.002	0.690	0.190	0.291	-0.005	0.810	0.426	0.312	-0.004
0.530	0.589	0.223	-0.002	0.690	0.230	0.293	-0.005	0.810	0.465	0.307	-0.003
0.560	0.034	0.240	-0.004	0.690	0.270	0.297	-0.004	0.810	0.505	0.285	-0.003
0.560	0.074	0.271	-0.005	0.690	0.309	0.299	-0.004	0.810	0.545	0.277	-0.003
0.570	0.113	0.293	-0.005	0.690	0.349	0.295	-0.005	0.810	0.584	0.228	-0.004
0.570	0.153	0.294	-0.005	0.690	0.388	0.294	-0.005	0.840	0.030	0.240	-0.005
0.570	0.192	0.302	-0.004	0.690	0.428	0.303	-0.003	0.840	0.069	0.277	-0.005
0.570	0.232	0.307	-0.005	0.690	0.467	0.305	-0.003	0.840	0.109	0.292	-0.005





0.840	0.148	0.300	-0.005	0.970	0.463	0.296	-0.012	1.240	0.023	0.246	-0.003
0.840	0.188	0.302	-0.006	1.000	0.027	0.249	-0.003	1.240	0.063	0.280	-0.004
0.850	0.227	0.298	-0.006	1.000	0.067	0.283	-0.005	1.240	0.102	0.293	-0.004
0.850	0.267	0.300	-0.006	1.000	0.106	0.305	-0.006	1.240	0.142	0.304	-0.005
0.850	0.307	0.308	-0.007	1.000	0.146	0.316	-0.007	1.240	0.181	0.308	-0.005
0.850	0.346	0.310	-0.006	1.000	0.185	0.318	-0.006	1.240	0.221	0.311	-0.006
0.850	0.386	0.314	-0.005	1.000	0.225	0.320	-0.007	1.240	0.261	0.309	-0.007
0.850	0.425	0.315	-0.005	1.000	0.264	0.324	-0.007	1.240	0.300	0.233	-0.005
0.850	0.465	0.306	-0.005	1.010	0.304	0.332	-0.008	1.280	0.023	0.242	-0.003
0.850	0.504	0.305	-0.004	1.010	0.344	0.337	-0.007	1.280	0.062	0.276	-0.004
0.850	0.544	0.282	0.001	1.010	0.383	0.329	-0.009	1.280	0.102	0.295	-0.005
0.850	0.583	0.228	-0.003	1.040	0.026	0.263	-0.004	1.280	0.141	0.303	-0.005
0.880	0.029	0.241	-0.004	1.040	0.066	0.290	-0.005	1.280	0.181	0.303	-0.005
0.880	0.069	0.281	-0.005	1.040	0.106	0.309	-0.005	1.280	0.220	0.305	-0.006
0.880	0.108	0.298	-0.005	1.040	0.145	0.313	-0.006	1.280	0.260	0.299	-0.007
0.880	0.148	0.301	-0.007	1.040	0.185	0.320	-0.006	1.280	0.299	0.144	-0.003
0.880	0.187	0.303	-0.007	1.040	0.224	0.318	-0.008	1.320	0.022	0.240	-0.004
0.880	0.227	0.303	-0.006	1.040	0.264	0.327	-0.007	1.320	0.061	0.276	-0.004
0.890	0.266	0.307	-0.007	1.050	0.303	0.333	-0.007	1.320	0.101	0.292	-0.005
0.890	0.306	0.315	-0.008	1.050	0.343	0.332	-0.014	1.320	0.141	0.300	-0.004
0.890	0.345	0.312	-0.006	1.080	0.026	0.272	-0.003	1.320	0.180	0.302	-0.004
0.890	0.385	0.314	-0.005	1.080	0.065	0.292	-0.004	1.320	0.220	0.300	-0.006
0.890	0.425	0.318	-0.006	1.080	0.105	0.303	-0.005	1.320	0.259	0.293	-0.007
0.890	0.464	0.317	-0.006	1.080	0.144	0.317	-0.006	1.320	0.299	0.273	0.000
0.890	0.504	0.322	-0.005	1.080	0.184	0.320	-0.005	1.360	0.021	0.237	-0.004
0.890	0.543	0.287	-0.001	1.080	0.224	0.326	-0.007	1.360	0.061	0.274	-0.004
0.890	0.583	0.240	-0.005	1.080	0.263	0.328	-0.008	1.360	0.100	0.292	-0.005
0.920	0.028	0.251	-0.004	1.080	0.303	0.329	-0.008	1.360	0.140	0.302	-0.005
0.920	0.068	0.286	-0.005	1.090	0.342	0.331	-0.019	1.360	0.179	0.299	-0.004
0.920	0.107	0.303	-0.005	1.120	0.025	0.278	-0.003	1.360	0.219	0.295	-0.007
0.920	0.147	0.307	-0.006	1.120	0.065	0.293	-0.003	1.360	0.259	0.288	-0.008
0.920	0.187	0.309	-0.006	1.120	0.104	0.307	-0.005	1.360	0.298	0.277	-0.001
0.920	0.226	0.309	-0.007	1.120	0.144	0.319	-0.005	1.400	0.021	0.237	-0.004
0.930	0.266	0.316	-0.007	1.120	0.183	0.321	-0.006	1.400	0.060	0.274	-0.003
0.930	0.305	0.320	-0.007	1.120	0.223	0.325	-0.007	1.400	0.100	0.291	-0.004
0.930	0.345	0.320	-0.007	1.120	0.262	0.330	-0.006	1.400	0.139	0.292	-0.003
0.930	0.384	0.326	-0.007	1.120	0.302	0.327	-0.010	1.400	0.179	0.294	-0.004
0.930	0.424	0.329	-0.006	1.160	0.024	0.270	-0.002	1.400	0.218	0.294	-0.006
0.930	0.463	0.311	-0.006	1.160	0.064	0.290	-0.003	1.400	0.258	0.292	-0.006
0.930	0.503	0.319	-0.006	1.160	0.104	0.308	-0.005	1.400	0.298	0.290	-0.005
0.930	0.543	0.289	-0.005	1.160	0.143	0.315	-0.006	1.400	0.337	0.282	-0.006
0.930	0.582	0.205	-0.006	1.160	0.183	0.313	-0.006	1.440	0.020	0.232	-0.004
0.960	0.028	0.248	-0.004	1.160	0.222	0.315	-0.007	1.440	0.060	0.270	-0.003
0.960	0.067	0.283	-0.005	1.160	0.262	0.325	-0.006	1.440	0.099	0.287	-0.004
0.960	0.107	0.303	-0.005	1.160	0.301	0.320	-0.009	1.440	0.139	0.291	-0.004
0.960	0.146	0.307	-0.007	1.200	0.024	0.259	-0.004	1.440	0.178	0.293	-0.004
0.960	0.186	0.313	-0.008	1.200	0.063	0.288	-0.004	1.440	0.218	0.291	-0.005
0.960	0.225	0.312	-0.008	1.200	0.103	0.301	-0.005	1.440	0.257	0.291	-0.006
0.970	0.265	0.316	-0.007	1.200	0.142	0.312	-0.005	1.440	0.297	0.296	-0.005
0.970	0.305	0.326	-0.008	1.200	0.182	0.313	-0.005	1.440	0.336	0.281	-0.003
0.970	0.344	0.330	-0.007	1.200	0.222	0.314	-0.006	1.440	0.376	0.199	0.002
0.970	0.384	0.328	-0.007	1.200	0.261	0.323	-0.006	1.480	0.019	0.218	-0.003
0.970	0.423	0.312	-0.008	1.200	0.301	0.323	-0.010	1.480	0.059	0.256	-0.004





1.480	0.098	0.283	-0.005	1.640	0.056	0.255	-0.005	1.760	0.371	0.299	-0.006
1.480	0.138	0.290	-0.004	1.640	0.096	0.282	-0.004	1.760	0.410	0.292	-0.004
1.480	0.178	0.294	-0.004	1.640	0.135	0.288	-0.004	1.760	0.450	0.292	-0.004
1.480	0.217	0.297	-0.006	1.640	0.175	0.288	-0.005	1.760	0.489	0.288	-0.003
1.480	0.257	0.298	-0.005	1.640	0.215	0.290	-0.006	1.760	0.529	0.275	-0.002
1.480	0.296	0.297	-0.005	1.640	0.254	0.296	-0.004	1.770	0.569	0.220	-0.004
1.480	0.336	0.293	-0.005	1.640	0.294	0.297	-0.005	1.800	0.014	0.242	-0.004
1.480	0.375	0.286	-0.004	1.640	0.333	0.295	-0.005	1.800	0.054	0.263	-0.004
1.480	0.415	0.284	-0.002	1.640	0.373	0.294	-0.005	1.800	0.093	0.284	-0.004
1.520	0.019	0.220	-0.003	1.640	0.412	0.290	-0.004	1.800	0.133	0.297	-0.005
1.520	0.058	0.250	-0.004	1.640	0.452	0.296	-0.005	1.800	0.172	0.302	-0.006
1.520	0.098	0.280	-0.004	1.640	0.491	0.289	-0.004	1.800	0.212	0.303	-0.006
1.520	0.137	0.283	-0.004	1.650	0.531	0.276	-0.004	1.800	0.251	0.298	-0.005
1.520	0.177	0.289	-0.004	1.650	0.571	0.231	-0.004	1.800	0.291	0.301	-0.005
1.520	0.216	0.295	-0.005	1.680	0.016	0.235	-0.004	1.800	0.331	0.297	-0.005
1.520	0.256	0.295	-0.005	1.680	0.056	0.257	-0.004	1.800	0.370	0.294	-0.004
1.520	0.296	0.292	-0.005	1.680	0.095	0.286	-0.004	1.800	0.410	0.299	-0.004
1.520	0.335	0.291	-0.006	1.680	0.135	0.292	-0.004	1.800	0.449	0.301	-0.005
1.520	0.375	0.290	-0.006	1.680	0.174	0.292	-0.003	1.800	0.489	0.294	-0.005
1.520	0.414	0.290	-0.005	1.680	0.214	0.291	-0.005	1.800	0.528	0.280	-0.003
1.520	0.454	0.288	-0.005	1.680	0.253	0.299	-0.005	1.800	0.568	0.230	-0.004
1.530	0.493	0.287	-0.003	1.680	0.293	0.301	-0.006	1.840	0.013	0.237	-0.003
1.560	0.018	0.225	-0.004	1.680	0.333	0.294	-0.005	1.840	0.053	0.267	-0.003
1.560	0.058	0.254	-0.004	1.680	0.372	0.292	-0.004	1.840	0.093	0.279	-0.004
1.560	0.097	0.286	-0.004	1.680	0.412	0.289	-0.004	1.840	0.132	0.288	-0.003
1.560	0.137	0.289	-0.003	1.680	0.451	0.290	-0.003	1.840	0.172	0.292	-0.004
1.560	0.176	0.293	-0.004	1.680	0.491	0.286	-0.004	1.840	0.211	0.297	-0.006
1.560	0.216	0.293	-0.003	1.680	0.530	0.272	-0.004	1.840	0.251	0.298	-0.005
1.560	0.255	0.290	-0.004	1.690	0.570	0.239	-0.005	1.840	0.290	0.295	-0.004
1.560	0.295	0.289	-0.005	1.720	0.015	0.228	-0.004	1.840	0.330	0.296	-0.004
1.560	0.334	0.291	-0.004	1.720	0.055	0.252	-0.005	1.840	0.370	0.293	-0.004
1.560	0.374	0.291	-0.005	1.720	0.095	0.285	-0.004	1.840	0.409	0.292	-0.005
1.560	0.414	0.293	-0.005	1.720	0.134	0.295	-0.004	1.840	0.449	0.294	-0.005
1.560	0.453	0.291	-0.006	1.720	0.174	0.296	-0.004	1.840	0.488	0.285	-0.004
1.570	0.493	0.278	-0.005	1.720	0.213	0.297	-0.006	1.840	0.528	0.269	-0.004
1.570	0.532	0.236	-0.003	1.720	0.253	0.302	-0.007	1.840	0.567	0.232	-0.005
1.570	0.572	0.214	-0.004	1.720	0.292	0.305	-0.008	1.880	0.013	0.244	-0.003
1.600	0.017	0.226	-0.004	1.720	0.332	0.296	-0.005	1.880	0.052	0.267	-0.002
1.600	0.057	0.256	-0.004	1.720	0.371	0.294	-0.005	1.880	0.092	0.282	-0.004
1.600	0.096	0.293	-0.004	1.720	0.411	0.292	-0.003	1.880	0.132	0.289	-0.004
1.600	0.136	0.294	-0.004	1.720	0.451	0.291	-0.003	1.880	0.171	0.292	-0.005
1.600	0.176	0.291	-0.005	1.720	0.490	0.289	-0.002	1.880	0.211	0.297	-0.005
1.600	0.215	0.291	-0.005	1.720	0.530	0.276	-0.003	1.880	0.250	0.304	-0.006
1.600	0.255	0.299	-0.004	1.730	0.569	0.233	-0.004	1.880	0.290	0.300	-0.004
1.600	0.294	0.298	-0.005	1.760	0.015	0.238	-0.004	1.880	0.329	0.294	-0.005
1.600	0.334	0.295	-0.005	1.760	0.054	0.260	-0.004	1.880	0.369	0.293	-0.005
1.600	0.373	0.294	-0.006	1.760	0.094	0.286	-0.005	1.880	0.408	0.290	-0.004
1.600	0.413	0.295	-0.005	1.760	0.133	0.291	-0.004	1.880	0.448	0.289	-0.004
1.600	0.453	0.292	-0.005	1.760	0.173	0.301	-0.004	1.880	0.488	0.283	-0.004
1.600	0.492	0.286	-0.005	1.760	0.213	0.299	-0.006	1.880	0.527	0.270	-0.004
1.610	0.532	0.276	-0.004	1.760	0.252	0.298	-0.006	1.880	0.567	0.233	-0.004
1.610	0.571	0.222	-0.004	1.760	0.292	0.302	-0.006	1.920	0.012	0.188	-0.002
1.640	0.017	0.240	-0.004	1.760	0.331	0.302	-0.006	1.920	0.052	0.274	-0.002





1.920	0.091	0.282	-0.003	2.040	0.457	0.262	0.000	2.190	0.221	0.280	-0.001
1.920	0.131	0.282	-0.001	2.040	0.497	0.250	-0.001	2.190	0.260	0.285	-0.002
1.920	0.170	0.284	-0.002	2.040	0.536	0.236	-0.001	2.190	0.299	0.278	-0.001
1.920	0.210	0.287	-0.001	2.040	0.575	0.200	-0.001	2.190	0.339	0.272	-0.001
1.920	0.289	0.292	-0.005	2.070	0.025	0.169	0.000	2.190	0.378	0.269	0.000
1.920	0.329	0.290	-0.003	2.070	0.064	0.227	-0.001	2.190	0.417	0.276	0.000
1.920	0.368	0.287	-0.006	2.070	0.103	0.249	-0.001	2.190	0.496	0.252	0.000
1.920	0.408	0.285	-0.005	2.080	0.143	0.260	-0.001	2.190	0.535	0.247	0.001
1.920	0.447	0.280	-0.006	2.080	0.182	0.277	-0.002	2.190	0.575	0.181	0.000
1.920	0.487	0.264	-0.007	2.080	0.221	0.275	-0.002	2.230	0.024	0.176	-0.001
1.920	0.526	0.247	-0.006	2.080	0.261	0.280	-0.001	2.230	0.063	0.235	-0.003
1.920	0.566	0.231	-0.005	2.080	0.300	0.282	-0.002	2.230	0.103	0.272	-0.003
1.960	0.025	0.194	-0.002	2.080	0.339	0.279	-0.001	2.230	0.142	0.275	-0.003
1.960	0.065	0.247	-0.003	2.080	0.379	0.269	-0.003	2.230	0.181	0.273	-0.002
1.960	0.104	0.262	-0.003	2.080	0.418	0.266	-0.003	2.230	0.221	0.280	-0.001
1.960	0.143	0.271	-0.003	2.080	0.457	0.256	-0.001	2.230	0.260	0.286	-0.002
1.960	0.183	0.278	-0.002	2.080	0.497	0.270	-0.001	2.230	0.299	0.283	-0.002
1.960	0.222	0.283	-0.003	2.080	0.536	0.247	-0.001	2.230	0.338	0.278	-0.002
1.960	0.261	0.287	-0.001	2.080	0.575	0.186	0.000	2.230	0.378	0.274	0.000
1.960	0.301	0.290	0.000	2.110	0.025	0.200	-0.001	2.230	0.417	0.276	0.000
1.960	0.340	0.284	-0.002	2.110	0.064	0.240	-0.002	2.230	0.456	0.274	-0.001
1.960	0.379	0.279	-0.002	2.110	0.103	0.264	-0.001	2.230	0.496	0.269	0.000
1.960	0.419	0.277	0.000	2.110	0.143	0.269	-0.002	2.230	0.535	0.252	0.000
1.960	0.458	0.271	-0.001	2.110	0.182	0.278	-0.001	2.230	0.574	0.195	-0.001
1.960	0.497	0.266	0.000	2.110	0.221	0.278	-0.001	2.270	0.024	0.170	-0.001
1.960	0.537	0.258	0.000	2.110	0.260	0.279	-0.001	2.270	0.063	0.223	-0.004
1.960	0.576	0.187	-0.001	2.110	0.300	0.281	-0.002	2.270	0.102	0.264	-0.002
2.000	0.025	0.145	-0.002	2.110	0.339	0.277	-0.001	2.270	0.142	0.273	-0.002
2.000	0.065	0.233	-0.002	2.110	0.378	0.269	-0.002	2.270	0.181	0.275	-0.003
2.000	0.104	0.266	-0.003	2.120	0.418	0.264	-0.004	2.270	0.220	0.277	-0.002
2.000	0.143	0.269	-0.003	2.120	0.457	0.254	-0.002	2.270	0.260	0.280	-0.002
2.000	0.182	0.276	-0.002	2.120	0.496	0.273	-0.002	2.270	0.299	0.279	-0.002
2.000	0.222	0.284	-0.002	2.120	0.536	0.237	0.000	2.270	0.338	0.276	-0.002
2.000	0.261	0.285	-0.002	2.150	0.024	0.201	-0.001	2.270	0.378	0.275	-0.001
2.000	0.300	0.284	-0.001	2.150	0.064	0.247	-0.002	2.270	0.417	0.273	-0.001
2.000	0.340	0.280	-0.001	2.150	0.103	0.266	-0.001	2.270	0.456	0.277	-0.002
2.000	0.379	0.274	-0.002	2.150	0.142	0.274	-0.002	2.270	0.496	0.271	-0.002
2.000	0.418	0.271	-0.003	2.150	0.182	0.277	-0.001	2.270	0.535	0.252	-0.001
2.000	0.458	0.269	-0.001	2.150	0.221	0.281	0.000	2.270	0.574	0.203	-0.001
2.000	0.497	0.258	0.000	2.150	0.260	0.284	0.000	2.310	0.023	0.162	-0.001
2.000	0.536	0.248	-0.002	2.150	0.300	0.283	-0.001	2.310	0.063	0.221	-0.003
2.000	0.576	0.204	-0.001	2.150	0.339	0.279	-0.002	2.310	0.102	0.265	-0.001
2.040	0.025	0.148	0.000	2.150	0.378	0.265	-0.002	2.310	0.141	0.274	-0.002
2.040	0.064	0.234	-0.002	2.150	0.418	0.267	0.000	2.310	0.181	0.278	-0.003
2.040	0.104	0.262	-0.001	2.150	0.457	0.273	-0.001	2.310	0.220	0.277	-0.003
2.040	0.143	0.271	-0.003	2.150	0.496	0.264	0.000	2.310	0.259	0.277	-0.002
2.040	0.182	0.282	-0.002	2.150	0.535	0.248	0.001	2.310	0.299	0.281	-0.002
2.040	0.222	0.284	-0.003	2.150	0.575	0.179	0.000	2.310	0.338	0.276	-0.001
2.040	0.261	0.284	-0.002	2.190	0.024	0.199	-0.001	2.310	0.377	0.275	-0.001
2.040	0.300	0.283	-0.001	2.190	0.063	0.240	-0.003	2.310	0.417	0.277	-0.001
2.040	0.340	0.278	-0.001	2.190	0.103	0.269	-0.002	2.310	0.456	0.276	-0.002
2.040	0.379	0.273	-0.001	2.190	0.142	0.274	-0.003	2.310	0.495	0.273	-0.002
2.040	0.418	0.270	-0.002	2.190	0.181	0.277	-0.001	2.310	0.535	0.253	0.000





2.310	0.574	0.208	-0.001	2.470	0.298	0.286	-0.001	2.630	0.022	0.207	-0.001
2.350	0.023	0.190	-0.001	2.470	0.337	0.285	-0.001	2.630	0.061	0.228	-0.002
2.350	0.063	0.232	-0.001	2.470	0.377	0.282	-0.001	2.630	0.100	0.258	-0.002
2.350	0.102	0.264	-0.001	2.470	0.416	0.273	-0.001	2.630	0.140	0.265	-0.001
2.350	0.141	0.273	-0.002	2.470	0.455	0.278	-0.001	2.630	0.179	0.268	0.000
2.350	0.181	0.276	-0.002	2.470	0.494	0.275	-0.001	2.630	0.218	0.270	0.000
2.350	0.220	0.280	-0.002	2.470	0.534	0.253	-0.002	2.630	0.258	0.271	-0.001
2.350	0.259	0.282	-0.002	2.470	0.573	0.199	-0.001	2.630	0.297	0.279	-0.001
2.350	0.299	0.284	-0.002	2.510	0.022	0.215	-0.001	2.630	0.336	0.278	-0.002
2.350	0.338	0.278	-0.002	2.510	0.062	0.234	-0.002	2.630	0.376	0.274	-0.001
2.350	0.377	0.272	-0.001	2.510	0.101	0.259	-0.002	2.630	0.415	0.274	-0.001
2.350	0.416	0.276	-0.001	2.510	0.140	0.269	-0.001	2.630	0.454	0.270	0.000
2.350	0.456	0.280	-0.001	2.510	0.180	0.276	-0.001	2.630	0.494	0.264	-0.001
2.350	0.495	0.275	-0.001	2.510	0.219	0.279	-0.002	2.630	0.533	0.243	0.000
2.350	0.534	0.248	0.000	2.510	0.258	0.279	-0.002	2.630	0.572	0.174	-0.001
2.350	0.574	0.202	-0.001	2.510	0.298	0.281	-0.001	2.670	0.022	0.200	-0.001
2.390	0.023	0.203	-0.002	2.510	0.337	0.279	-0.001	2.670	0.061	0.225	-0.002
2.390	0.062	0.233	-0.001	2.510	0.376	0.276	-0.001	2.670	0.100	0.258	-0.002
2.390	0.102	0.267	-0.001	2.510	0.416	0.273	-0.001	2.670	0.140	0.266	0.000
2.390	0.141	0.272	-0.002	2.510	0.455	0.270	-0.001	2.670	0.179	0.266	0.000
2.390	0.180	0.278	-0.002	2.510	0.494	0.261	0.000	2.670	0.218	0.270	0.000
2.390	0.220	0.283	-0.002	2.510	0.534	0.254	-0.001	2.670	0.257	0.274	0.000
2.390	0.259	0.281	-0.001	2.510	0.573	0.216	-0.001	2.670	0.297	0.278	-0.001
2.390	0.298	0.281	-0.002	2.550	0.022	0.212	-0.001	2.670	0.336	0.276	-0.002
2.390	0.338	0.278	-0.002	2.550	0.062	0.228	-0.001	2.670	0.375	0.273	-0.001
2.390	0.377	0.276	-0.001	2.550	0.101	0.256	-0.002	2.670	0.415	0.270	-0.001
2.390	0.416	0.277	-0.001	2.550	0.140	0.267	-0.002	2.670	0.454	0.272	0.000
2.390	0.456	0.277	0.000	2.550	0.179	0.269	-0.002	2.670	0.493	0.263	-0.001
2.390	0.495	0.274	0.000	2.550	0.219	0.277	-0.001	2.670	0.533	0.242	-0.002
2.390	0.534	0.256	0.000	2.550	0.258	0.278	-0.001	2.670	0.572	0.193	-0.001
2.390	0.574	0.180	-0.001	2.550	0.297	0.279	-0.001	2.700	0.021	0.198	0.000
2.430	0.023	0.206	-0.001	2.550	0.337	0.276	-0.001	2.700	0.061	0.227	-0.002
2.430	0.062	0.229	-0.001	2.550	0.376	0.273	-0.002	2.700	0.100	0.254	-0.002
2.430	0.101	0.266	-0.001	2.550	0.415	0.271	-0.001	2.700	0.139	0.267	0.000
2.430	0.141	0.274	-0.002	2.550	0.455	0.272	-0.001	2.700	0.179	0.271	0.001
2.430	0.180	0.273	-0.001	2.550	0.494	0.270	-0.002	2.710	0.218	0.271	0.000
2.430	0.219	0.273	-0.002	2.550	0.533	0.246	-0.001	2.710	0.257	0.271	-0.001
2.430	0.259	0.278	-0.003	2.550	0.573	0.219	-0.001	2.710	0.297	0.276	-0.001
2.430	0.298	0.282	-0.002	2.590	0.022	0.208	-0.001	2.710	0.336	0.275	-0.002
2.430	0.337	0.282	-0.002	2.590	0.061	0.228	-0.002	2.710	0.375	0.271	-0.002
2.430	0.377	0.279	-0.001	2.590	0.101	0.254	-0.002	2.710	0.415	0.268	-0.001
2.430	0.416	0.277	-0.001	2.590	0.140	0.265	-0.001	2.710	0.454	0.270	-0.001
2.430	0.455	0.280	-0.001	2.590	0.179	0.267	-0.001	2.710	0.493	0.261	-0.001
2.430	0.495	0.276	-0.001	2.590	0.219	0.273	-0.002	2.710	0.533	0.238	-0.002
2.430	0.534	0.261	-0.002	2.590	0.258	0.276	0.000	2.710	0.572	0.203	-0.001
2.430	0.573	0.186	-0.001	2.590	0.297	0.277	-0.001	2.740	0.021	0.197	-0.001
2.470	0.023	0.211	-0.001	2.590	0.337	0.276	-0.001	2.740	0.060	0.232	-0.002
2.470	0.062	0.230	-0.002	2.590	0.376	0.273	0.000	2.740	0.100	0.255	-0.002
2.470	0.101	0.265	-0.001	2.590	0.415	0.273	0.000	2.740	0.139	0.265	0.000
2.470	0.141	0.273	-0.002	2.590	0.455	0.269	-0.001	2.740	0.178	0.267	0.000
2.470	0.180	0.270	-0.001	2.590	0.494	0.266	-0.002	2.740	0.218	0.271	-0.001
2.470	0.219	0.268	-0.002	2.590	0.533	0.249	-0.001	2.740	0.257	0.273	-0.001
2.470	0.259	0.280	-0.001	2.590	0.572	0.186	-0.001	2.740	0.296	0.274	-0.001





2.740	0.336	0.274	-0.001	2.900	0.099	0.251	-0.001	3.020	0.452	0.265	0.000
2.740	0.375	0.272	-0.001	2.900	0.138	0.255	-0.003	3.020	0.491	0.260	0.000
2.740	0.414	0.268	-0.001	2.900	0.178	0.259	-0.002	3.020	0.531	0.235	-0.001
2.740	0.454	0.269	-0.001	2.900	0.217	0.264	0.000	3.020	0.570	0.212	-0.001
2.740	0.493	0.266	-0.001	2.900	0.256	0.268	0.000	3.060	0.019	0.204	0.000
2.750	0.532	0.243	-0.001	2.900	0.296	0.273	0.000	3.060	0.059	0.221	0.000
2.750	0.572	0.215	-0.001	2.900	0.335	0.271	0.000	3.060	0.098	0.233	-0.001
2.780	0.021	0.191	-0.001	2.900	0.374	0.268	-0.001	3.060	0.137	0.248	-0.001
2.780	0.060	0.225	-0.001	2.900	0.413	0.272	0.000	3.060	0.177	0.259	0.000
2.780	0.100	0.258	-0.001	2.900	0.453	0.268	-0.001	3.060	0.216	0.262	0.000
2.780	0.139	0.264	-0.001	2.900	0.492	0.259	-0.001	3.060	0.255	0.262	0.000
2.780	0.178	0.265	-0.001	2.900	0.531	0.240	-0.001	3.060	0.295	0.266	0.000
2.780	0.218	0.270	0.000	2.900	0.571	0.216	-0.001	3.060	0.334	0.269	0.001
2.780	0.257	0.274	0.000	2.940	0.020	0.181	-0.002	3.060	0.373	0.267	-0.001
2.780	0.296	0.273	0.000	2.940	0.059	0.235	-0.003	3.060	0.413	0.262	-0.001
2.780	0.335	0.272	-0.001	2.940	0.099	0.257	-0.001	3.060	0.452	0.263	-0.001
2.780	0.375	0.271	-0.001	2.940	0.138	0.259	-0.002	3.060	0.491	0.259	0.000
2.780	0.414	0.269	-0.002	2.940	0.177	0.260	-0.001	3.060	0.531	0.232	0.000
2.780	0.453	0.270	-0.001	2.940	0.217	0.265	-0.001	3.060	0.570	0.197	-0.001
2.780	0.493	0.265	-0.001	2.940	0.256	0.269	0.000	3.100	0.019	0.208	-0.001
2.780	0.532	0.237	0.003	2.940	0.335	0.270	0.000	3.100	0.059	0.224	-0.001
2.780	0.571	0.222	-0.001	2.940	0.374	0.267	-0.001	3.100	0.098	0.235	-0.001
2.820	0.021	0.165	-0.002	2.940	0.413	0.271	-0.001	3.100	0.137	0.225	-0.002
2.820	0.060	0.217	-0.002	2.940	0.453	0.271	-0.001	3.100	0.177	0.254	0.000
2.820	0.099	0.260	-0.001	2.940	0.492	0.263	-0.001	3.100	0.216	0.256	0.000
2.820	0.139	0.262	-0.001	2.940	0.531	0.240	0.000	3.100	0.255	0.254	-0.001
2.820	0.178	0.265	-0.001	2.940	0.571	0.218	-0.001	3.100	0.294	0.260	0.001
2.820	0.217	0.269	-0.001	2.980	0.020	0.185	-0.001	3.100	0.334	0.265	0.001
2.820	0.257	0.270	-0.001	2.980	0.059	0.226	-0.002	3.100	0.373	0.260	-0.001
2.820	0.296	0.270	-0.001	2.980	0.099	0.252	-0.001	3.100	0.412	0.263	0.000
2.820	0.335	0.270	-0.001	2.980	0.138	0.258	-0.001	3.100	0.452	0.264	-0.001
2.820	0.375	0.271	-0.001	2.980	0.177	0.262	-0.001	3.100	0.491	0.256	-0.001
2.820	0.414	0.269	-0.001	2.980	0.216	0.268	0.000	3.100	0.530	0.230	0.001
2.820	0.453	0.267	-0.001	2.980	0.256	0.267	-0.002	3.100	0.570	0.193	-0.001
2.820	0.493	0.266	-0.001	2.980	0.295	0.269	0.000	3.140	0.019	0.208	0.000
2.820	0.532	0.235	0.000	2.980	0.334	0.267	0.000	3.140	0.058	0.224	0.000
2.820	0.571	0.225	-0.001	2.980	0.374	0.266	-0.001	3.140	0.098	0.239	-0.002
2.860	0.021	0.208	-0.005	2.980	0.413	0.269	-0.001	3.140	0.137	0.247	-0.003
2.860	0.060	0.219	-0.003	2.980	0.452	0.267	-0.001	3.140	0.176	0.226	-0.001
2.860	0.099	0.249	-0.001	2.980	0.492	0.259	-0.001	3.140	0.216	0.248	-0.001
2.860	0.138	0.259	-0.001	2.980	0.531	0.236	-0.001	3.140	0.255	0.249	0.000
2.860	0.178	0.260	-0.002	2.980	0.570	0.217	-0.001	3.140	0.294	0.259	0.001
2.860	0.217	0.268	0.000	3.020	0.020	0.201	0.000	3.140	0.334	0.262	0.000
2.860	0.296	0.272	0.000	3.020	0.059	0.217	0.000	3.140	0.373	0.261	0.000
2.860	0.335	0.272	0.000	3.020	0.098	0.241	-0.002	3.140	0.412	0.265	-0.001
2.860	0.374	0.272	-0.001	3.020	0.138	0.250	-0.001	3.140	0.452	0.263	-0.001
2.860	0.414	0.275	-0.001	3.020	0.177	0.251	-0.002	3.140	0.491	0.257	-0.001
2.860	0.453	0.270	-0.002	3.020	0.216	0.266	0.000	3.140	0.530	0.237	0.000
2.860	0.492	0.261	-0.001	3.020	0.256	0.271	0.000	3.140	0.569	0.187	-0.001
2.860	0.532	0.247	-0.001	3.020	0.295	0.267	0.000	3.180	0.019	0.197	-0.002
2.860	0.571	0.224	-0.001	3.020	0.334	0.265	0.000	3.180	0.058	0.225	-0.001
2.900	0.020	0.180	-0.004	3.020	0.374	0.267	0.000	3.180	0.097	0.245	-0.005
2.900	0.060	0.228	-0.003	3.020	0.413	0.264	-0.001	3.180	0.137	0.249	-0.005





3.180	0.176	0.251	-0.005	3.290	0.538	0.231	0.000	3.490	0.576	0.211	-0.001
3.180	0.215	0.251	-0.005	3.290	0.577	0.193	-0.001	3.530	0.300	0.244	0.002
3.180	0.255	0.260	0.003	3.330	0.065	0.147	0.001	3.530	0.339	0.275	0.001
3.180	0.294	0.202	-0.001	3.330	0.104	0.164	-0.001	3.530	0.379	0.282	0.001
3.180	0.333	0.245	0.002	3.330	0.144	0.234	0.000	3.530	0.418	0.277	0.000
3.180	0.373	0.253	-0.002	3.330	0.183	0.262	-0.001	3.530	0.457	0.277	0.000
3.180	0.451	0.246	-0.001	3.330	0.223	0.271	-0.001	3.530	0.497	0.268	-0.001
3.180	0.491	0.228	-0.002	3.330	0.262	0.270	0.000	3.530	0.536	0.255	-0.001
3.180	0.530	0.220	-0.001	3.330	0.301	0.267	0.000	3.530	0.576	0.211	-0.001
3.180	0.569	0.199	-0.001	3.330	0.341	0.271	0.000	3.570	0.300	0.267	0.007
3.210	0.027	0.172	-0.001	3.330	0.380	0.273	0.000	3.570	0.339	0.252	0.003
3.210	0.066	0.227	-0.003	3.330	0.419	0.272	-0.001	3.570	0.378	0.280	0.001
3.210	0.105	0.246	-0.002	3.330	0.459	0.266	0.000	3.570	0.418	0.278	0.000
3.210	0.145	0.251	-0.003	3.330	0.498	0.258	-0.001	3.570	0.457	0.276	0.000
3.210	0.184	0.254	-0.003	3.330	0.538	0.240	-0.004	3.570	0.496	0.270	-0.001
3.210	0.223	0.259	-0.002	3.330	0.577	0.186	-0.001	3.570	0.536	0.253	-0.001
3.210	0.263	0.265	-0.002	3.370	0.183	0.215	0.011	3.570	0.575	0.207	-0.001
3.210	0.302	0.264	-0.001	3.370	0.222	0.265	0.003	3.610	0.299	0.094	0.003
3.210	0.341	0.268	0.000	3.370	0.262	0.268	0.000	3.610	0.339	0.264	0.003
3.210	0.381	0.269	0.001	3.370	0.301	0.272	0.001	3.610	0.378	0.278	0.001
3.210	0.420	0.274	0.000	3.370	0.340	0.276	0.000	3.610	0.417	0.277	0.000
3.210	0.460	0.250	-0.001	3.370	0.380	0.275	0.000	3.610	0.457	0.271	0.000
3.210	0.499	0.253	-0.002	3.370	0.419	0.272	0.001	3.610	0.496	0.268	-0.001
3.210	0.538	0.241	-0.001	3.370	0.459	0.267	0.001	3.610	0.536	0.249	-0.002
3.210	0.578	0.189	-0.002	3.370	0.498	0.259	-0.001	3.610	0.575	0.203	-0.001
3.250	0.026	0.169	-0.001	3.370	0.537	0.241	-0.001	3.650	0.299	0.068	-0.001
3.250	0.066	0.227	-0.002	3.370	0.577	0.199	-0.001	3.650	0.338	0.246	0.002
3.250	0.105	0.247	-0.002	3.410	0.222	0.186	0.031	3.650	0.378	0.270	0.000
3.250	0.144	0.258	-0.002	3.410	0.261	0.268	0.002	3.650	0.417	0.275	0.001
3.250	0.184	0.266	-0.002	3.410	0.301	0.273	0.001	3.650	0.496	0.267	-0.001
3.250	0.223	0.268	-0.001	3.410	0.340	0.274	0.000	3.650	0.535	0.248	-0.002
3.250	0.262	0.267	-0.001	3.410	0.379	0.276	0.001	3.650	0.575	0.208	-0.001
3.250	0.302	0.268	-0.002	3.410	0.419	0.277	0.001	3.690	0.299	0.109	0.000
3.250	0.341	0.274	0.001	3.410	0.458	0.273	0.001	3.690	0.338	0.251	0.000
3.250	0.381	0.275	0.000	3.410	0.498	0.267	0.001	3.690	0.378	0.265	0.001
3.250	0.420	0.274	0.000	3.410	0.537	0.239	-0.002	3.690	0.417	0.271	-0.001
3.250	0.459	0.265	-0.001	3.410	0.576	0.201	-0.001	3.690	0.456	0.269	-0.001
3.250	0.499	0.251	-0.001	3.450	0.261	0.260	0.007	3.690	0.496	0.263	-0.002
3.250	0.538	0.229	-0.001	3.450	0.300	0.273	0.003	3.690	0.535	0.249	-0.003
3.250	0.577	0.192	-0.001	3.450	0.340	0.280	0.000	3.690	0.574	0.209	-0.001
3.290	0.026	0.092	0.001	3.450	0.379	0.278	0.000	3.730	0.299	0.196	0.001
3.290	0.065	0.230	-0.001	3.450	0.419	0.274	0.000	3.730	0.338	0.262	0.000
3.290	0.105	0.250	-0.002	3.450	0.458	0.269	0.000	3.730	0.417	0.272	0.000
3.290	0.144	0.258	-0.001	3.450	0.497	0.264	0.000	3.730	0.456	0.271	-0.001
3.290	0.183	0.265	-0.002	3.450	0.537	0.242	-0.001	3.730	0.495	0.265	-0.001
3.290	0.223	0.268	-0.002	3.450	0.576	0.205	-0.001	3.730	0.535	0.246	-0.001
3.290	0.262	0.268	-0.001	3.490	0.261	0.277	-0.001	3.730	0.574	0.213	-0.001
3.290	0.302	0.271	0.000	3.490	0.300	0.254	0.004	3.770	0.298	0.228	-0.002
3.290	0.341	0.274	0.001	3.490	0.340	0.281	-0.001	3.770	0.338	0.261	0.001
3.290	0.380	0.275	0.000	3.490	0.379	0.285	0.000	3.770	0.377	0.263	0.001
3.290	0.420	0.273	0.000	3.490	0.418	0.279	0.000	3.770	0.416	0.268	0.001
3.290	0.459	0.264	-0.001	3.490	0.458	0.272	-0.001	3.770	0.456	0.271	-0.001
3.290	0.498	0.251	0.001	3.490	0.536	0.249	-0.001	3.770	0.495	0.261	-0.001





3.770	0.534	0.243	-0.002	3.960	0.336	0.262	-0.001	4.120	0.060	0.186	-0.001
3.770	0.574	0.212	-0.001	3.960	0.376	0.266	-0.001	4.120	0.099	0.227	-0.001
3.810	0.259	0.162	0.002	3.960	0.415	0.266	0.000	4.120	0.138	0.234	-0.002
3.810	0.298	0.234	0.000	3.960	0.454	0.261	0.001	4.120	0.178	0.236	-0.002
3.810	0.337	0.252	0.000	3.960	0.494	0.255	0.000	4.120	0.217	0.236	-0.001
3.810	0.377	0.268	0.001	3.960	0.533	0.239	-0.002	4.120	0.256	0.235	-0.002
3.810	0.416	0.269	0.000	3.960	0.572	0.210	-0.002	4.120	0.296	0.241	-0.002
3.810	0.455	0.266	-0.001	4.000	0.021	0.147	-0.001	4.120	0.335	0.249	-0.003
3.810	0.495	0.258	-0.001	4.000	0.060	0.209	0.000	4.120	0.374	0.252	-0.002
3.810	0.534	0.245	-0.002	4.000	0.100	0.229	-0.001	4.120	0.414	0.253	-0.002
3.810	0.574	0.212	-0.002	4.000	0.139	0.241	-0.001	4.120	0.453	0.252	-0.003
3.850	0.219	0.229	-0.001	4.000	0.178	0.243	-0.001	4.120	0.493	0.248	-0.002
3.850	0.258	0.218	-0.008	4.000	0.218	0.240	-0.002	4.120	0.532	0.230	-0.002
3.850	0.298	0.252	-0.002	4.000	0.257	0.235	-0.002	4.120	0.571	0.184	-0.001
3.850	0.337	0.262	-0.001	4.000	0.297	0.243	-0.002	4.160	0.020	0.156	-0.003
3.850	0.376	0.270	-0.001	4.000	0.336	0.259	-0.002	4.160	0.059	0.198	-0.001
3.850	0.455	0.271	-0.001	4.000	0.375	0.265	-0.001	4.160	0.099	0.229	-0.002
3.850	0.495	0.260	0.000	4.000	0.415	0.265	-0.001	4.160	0.138	0.239	-0.002
3.850	0.534	0.244	-0.002	4.000	0.454	0.259	-0.001	4.160	0.177	0.237	-0.002
3.850	0.573	0.209	-0.002	4.000	0.493	0.247	-0.001	4.160	0.217	0.237	-0.002
3.890	0.179	0.255	-0.001	4.000	0.533	0.232	-0.001	4.160	0.256	0.233	-0.003
3.890	0.219	0.245	-0.003	4.000	0.572	0.203	-0.002	4.160	0.295	0.240	-0.002
3.890	0.258	0.245	0.000	4.040	0.021	0.106	-0.001	4.160	0.335	0.246	-0.002
3.890	0.297	0.250	-0.002	4.040	0.060	0.194	-0.001	4.160	0.374	0.249	-0.002
3.890	0.337	0.264	0.000	4.040	0.099	0.225	-0.002	4.160	0.414	0.253	-0.002
3.890	0.376	0.273	-0.002	4.040	0.139	0.234	-0.002	4.160	0.453	0.251	-0.001
3.890	0.416	0.275	-0.001	4.040	0.178	0.241	-0.002	4.160	0.492	0.247	-0.001
3.890	0.455	0.269	-0.001	4.040	0.218	0.238	-0.002	4.160	0.532	0.233	0.000
3.890	0.494	0.255	0.000	4.040	0.257	0.235	-0.002	4.160	0.571	0.203	0.000
3.890	0.534	0.242	-0.002	4.040	0.296	0.247	-0.002	4.200	0.020	0.177	-0.001
3.890	0.573	0.207	-0.001	4.040	0.336	0.256	-0.002	4.200	0.059	0.203	-0.002
3.920	0.061	0.232	0.008	4.040	0.375	0.259	-0.002	4.200	0.098	0.228	-0.002
3.920	0.100	0.197	-0.001	4.040	0.414	0.261	-0.002	4.200	0.138	0.240	-0.002
3.920	0.140	0.229	-0.003	4.040	0.454	0.258	-0.001	4.200	0.177	0.240	-0.002
3.920	0.179	0.245	0.000	4.040	0.493	0.249	-0.001	4.200	0.216	0.235	-0.002
3.920	0.218	0.244	-0.002	4.040	0.533	0.233	-0.001	4.200	0.256	0.233	-0.003
3.920	0.258	0.240	-0.001	4.040	0.572	0.195	-0.001	4.200	0.295	0.239	-0.003
3.920	0.297	0.247	-0.001	4.080	0.020	0.117	-0.001	4.200	0.335	0.244	-0.001
3.920	0.337	0.262	0.000	4.080	0.060	0.199	-0.001	4.200	0.374	0.248	-0.002
3.920	0.376	0.267	0.000	4.080	0.099	0.220	-0.002	4.200	0.413	0.252	-0.002
3.930	0.415	0.268	-0.001	4.080	0.139	0.233	-0.002	4.200	0.453	0.252	-0.001
3.930	0.455	0.265	-0.002	4.080	0.178	0.237	-0.002	4.200	0.492	0.244	0.000
3.930	0.494	0.254	0.000	4.080	0.217	0.235	-0.002	4.200	0.531	0.233	0.000
3.930	0.533	0.241	-0.001	4.080	0.257	0.233	-0.001	4.200	0.571	0.205	-0.001
3.930	0.573	0.208	-0.001	4.080	0.296	0.243	-0.002	4.240	0.019	0.176	-0.001
3.960	0.021	0.183	-0.002	4.080	0.335	0.254	-0.003	4.240	0.059	0.207	-0.001
3.960	0.061	0.214	-0.001	4.080	0.375	0.257	-0.002	4.240	0.098	0.226	-0.002
3.960	0.100	0.235	-0.002	4.080	0.414	0.258	-0.002	4.240	0.137	0.227	-0.002
3.960	0.139	0.239	-0.002	4.080	0.454	0.254	-0.002	4.240	0.177	0.232	-0.003
3.960	0.179	0.242	-0.002	4.080	0.493	0.245	-0.001	4.240	0.216	0.238	-0.004
3.960	0.218	0.245	-0.002	4.080	0.532	0.232	-0.001	4.240	0.256	0.237	-0.004
3.960	0.257	0.242	-0.002	4.080	0.572	0.176	-0.001	4.240	0.295	0.242	-0.004
3.960	0.297	0.250	-0.002	4.120	0.020	0.099	-0.001	4.240	0.334	0.252	-0.002





4.240	0.374	0.251	-0.002	4.400	0.097	0.222	-0.001	4.510	0.420	0.252	-0.003
4.240	0.413	0.253	-0.001	4.400	0.136	0.229	-0.001	4.510	0.459	0.254	-0.001
4.240	0.452	0.250	0.000	4.400	0.176	0.239	-0.002	4.510	0.499	0.247	-0.003
4.240	0.492	0.244	0.000	4.400	0.215	0.242	-0.002	4.510	0.538	0.237	-0.002
4.240	0.531	0.238	0.000	4.400	0.254	0.241	-0.003	4.510	0.577	0.184	-0.002
4.240	0.571	0.210	-0.001	4.400	0.294	0.249	-0.003	4.550	0.027	0.173	-0.001
4.280	0.019	0.190	-0.001	4.400	0.333	0.262	-0.002	4.550	0.066	0.212	-0.001
4.280	0.058	0.208	0.000	4.400	0.373	0.266	-0.002	4.550	0.105	0.235	-0.004
4.280	0.098	0.222	-0.001	4.400	0.412	0.261	-0.001	4.550	0.145	0.236	-0.004
4.280	0.137	0.232	-0.002	4.400	0.451	0.257	-0.001	4.550	0.184	0.238	-0.004
4.280	0.177	0.235	-0.002	4.400	0.491	0.250	-0.002	4.550	0.223	0.238	-0.003
4.280	0.216	0.244	-0.004	4.400	0.530	0.233	-0.002	4.550	0.262	0.237	-0.003
4.280	0.255	0.241	-0.004	4.400	0.569	0.200	-0.002	4.550	0.302	0.242	-0.003
4.280	0.295	0.254	-0.002	4.440	0.018	0.205	-0.002	4.550	0.341	0.251	-0.003
4.280	0.334	0.265	-0.001	4.440	0.057	0.210	-0.001	4.550	0.380	0.254	-0.003
4.280	0.373	0.270	-0.002	4.440	0.097	0.223	0.000	4.550	0.420	0.256	-0.001
4.280	0.413	0.271	-0.002	4.440	0.136	0.226	-0.001	4.550	0.459	0.260	-0.001
4.280	0.452	0.265	0.001	4.440	0.175	0.233	-0.003	4.550	0.498	0.245	-0.002
4.280	0.492	0.255	-0.001	4.440	0.215	0.244	0.001	4.550	0.538	0.241	-0.003
4.280	0.531	0.247	0.001	4.440	0.254	0.247	-0.002	4.550	0.577	0.166	-0.002
4.280	0.570	0.190	-0.001	4.440	0.294	0.253	-0.001	4.590	0.026	0.189	0.000
4.320	0.019	0.195	-0.001	4.440	0.333	0.256	0.001	4.590	0.066	0.211	-0.001
4.320	0.058	0.206	-0.001	4.440	0.372	0.263	-0.001	4.590	0.105	0.237	-0.003
4.320	0.098	0.217	-0.002	4.440	0.412	0.263	-0.003	4.590	0.144	0.242	-0.004
4.320	0.137	0.235	-0.002	4.440	0.451	0.254	-0.002	4.590	0.184	0.243	-0.004
4.320	0.176	0.244	-0.001	4.440	0.490	0.251	-0.002	4.590	0.223	0.242	-0.002
4.320	0.216	0.249	-0.003	4.440	0.530	0.226	-0.002	4.590	0.262	0.238	-0.002
4.320	0.255	0.245	-0.003	4.440	0.569	0.209	-0.001	4.590	0.302	0.244	-0.003
4.320	0.294	0.255	-0.002	4.470	0.027	0.158	-0.002	4.590	0.341	0.255	-0.001
4.320	0.334	0.268	-0.002	4.470	0.066	0.207	-0.003	4.590	0.380	0.259	-0.001
4.320	0.373	0.272	-0.002	4.470	0.106	0.233	-0.005	4.590	0.420	0.261	0.000
4.320	0.412	0.271	-0.001	4.470	0.145	0.236	-0.004	4.590	0.459	0.266	0.000
4.320	0.452	0.265	0.000	4.470	0.184	0.236	-0.004	4.590	0.498	0.254	0.000
4.320	0.491	0.259	-0.001	4.470	0.224	0.233	-0.003	4.590	0.538	0.230	0.002
4.320	0.531	0.244	-0.001	4.470	0.263	0.235	-0.003	4.590	0.577	0.162	-0.001
4.320	0.570	0.205	-0.001	4.470	0.302	0.246	-0.002	4.630	0.026	0.173	0.001
4.360	0.018	0.175	0.000	4.470	0.342	0.251	-0.002	4.630	0.065	0.215	-0.002
4.360	0.058	0.203	0.000	4.470	0.381	0.248	-0.002	4.630	0.105	0.240	-0.003
4.360	0.097	0.217	-0.001	4.470	0.420	0.252	-0.003	4.630	0.144	0.243	-0.004
4.360	0.137	0.230	-0.001	4.470	0.460	0.248	-0.002	4.630	0.183	0.244	-0.004
4.360	0.176	0.239	-0.001	4.470	0.499	0.240	-0.001	4.630	0.223	0.241	-0.003
4.360	0.215	0.244	-0.003	4.470	0.538	0.229	-0.002	4.630	0.262	0.240	-0.002
4.360	0.255	0.245	-0.002	4.470	0.577	0.178	-0.002	4.630	0.301	0.247	-0.002
4.360	0.294	0.256	-0.003	4.510	0.027	0.156	-0.002	4.630	0.341	0.262	0.000
4.360	0.333	0.260	-0.002	4.510	0.066	0.211	-0.001	4.630	0.380	0.271	0.000
4.360	0.373	0.266	-0.001	4.510	0.105	0.235	-0.004	4.630	0.419	0.268	0.000
4.360	0.412	0.269	-0.001	4.510	0.145	0.240	-0.004	4.630	0.459	0.263	-0.002
4.360	0.452	0.264	-0.001	4.510	0.184	0.239	-0.004	4.630	0.498	0.255	0.000
4.360	0.491	0.255	-0.002	4.510	0.223	0.235	-0.003	4.630	0.537	0.235	0.000
4.360	0.530	0.239	-0.001	4.510	0.263	0.235	-0.003	4.630	0.577	0.177	-0.001
4.360	0.570	0.199	-0.001	4.510	0.302	0.244	-0.003	4.670	0.026	0.156	0.002
4.400	0.018	0.174	-0.001	4.510	0.341	0.249	-0.003	4.670	0.065	0.212	-0.001
4.400	0.058	0.198	0.000	4.510	0.381	0.253	-0.002	4.670	0.105	0.238	-0.003





4.670	0.144	0.239	-0.004	4.790	0.458	0.264	-0.001	4.940	0.221	0.259	-0.002
4.670	0.183	0.246	-0.003	4.790	0.497	0.257	0.000	4.940	0.261	0.259	-0.003
4.670	0.223	0.244	-0.003	4.790	0.537	0.249	-0.001	4.940	0.300	0.270	0.001
4.670	0.262	0.239	-0.003	4.790	0.576	0.214	-0.001	4.940	0.339	0.273	-0.001
4.670	0.301	0.250	-0.002	4.820	0.576	0.211	-0.001	4.940	0.379	0.269	-0.001
4.670	0.341	0.268	-0.001	4.830	0.025	0.176	-0.001	4.940	0.418	0.271	0.000
4.670	0.380	0.273	0.000	4.830	0.064	0.217	-0.001	4.940	0.457	0.271	0.001
4.670	0.419	0.271	0.000	4.830	0.104	0.240	-0.002	4.940	0.496	0.267	0.000
4.670	0.459	0.264	-0.001	4.830	0.143	0.251	-0.004	4.940	0.536	0.248	-0.002
4.670	0.498	0.261	-0.001	4.830	0.182	0.250	-0.004	4.940	0.575	0.214	-0.001
4.670	0.537	0.225	-0.001	4.830	0.222	0.250	-0.004	4.950	0.025	0.111	-0.001
4.670	0.577	0.196	0.000	4.830	0.261	0.251	-0.004	4.980	0.024	0.178	0.000
4.710	0.026	0.166	0.001	4.830	0.300	0.265	-0.002	4.980	0.064	0.225	-0.001
4.710	0.065	0.210	0.000	4.830	0.340	0.269	-0.002	4.980	0.103	0.247	-0.001
4.710	0.104	0.233	-0.002	4.830	0.379	0.266	0.000	4.980	0.142	0.259	-0.001
4.710	0.144	0.244	-0.003	4.830	0.418	0.270	0.001	4.980	0.182	0.263	-0.002
4.710	0.183	0.249	-0.004	4.830	0.458	0.265	0.001	4.980	0.221	0.260	-0.003
4.710	0.222	0.246	-0.004	4.830	0.497	0.259	0.000	4.980	0.260	0.261	-0.002
4.710	0.262	0.241	-0.002	4.830	0.536	0.249	-0.001	4.980	0.300	0.268	0.000
4.710	0.301	0.252	-0.002	4.860	0.418	0.269	0.001	4.980	0.339	0.271	-0.001
4.710	0.340	0.268	-0.001	4.860	0.458	0.264	0.000	4.980	0.378	0.270	-0.001
4.710	0.380	0.270	0.000	4.860	0.497	0.260	0.000	4.980	0.418	0.273	0.000
4.710	0.419	0.272	0.001	4.860	0.536	0.251	-0.002	4.980	0.457	0.270	0.001
4.710	0.458	0.271	0.000	4.860	0.576	0.212	-0.001	4.980	0.496	0.264	-0.001
4.710	0.498	0.262	0.000	4.870	0.025	0.184	-0.001	4.980	0.536	0.242	-0.002
4.710	0.537	0.228	0.000	4.870	0.064	0.222	-0.001	4.980	0.575	0.209	-0.002
4.710	0.576	0.200	0.000	4.870	0.104	0.245	-0.001	5.020	0.024	0.201	-0.001
4.750	0.026	0.156	0.000	4.870	0.143	0.258	-0.002	5.020	0.064	0.230	-0.001
4.750	0.065	0.206	-0.001	4.870	0.182	0.257	-0.002	5.020	0.103	0.243	-0.001
4.750	0.104	0.235	-0.002	4.870	0.222	0.252	-0.002	5.020	0.142	0.262	-0.001
4.750	0.144	0.244	-0.003	4.870	0.261	0.255	-0.003	5.020	0.181	0.264	-0.002
4.750	0.183	0.249	-0.004	4.870	0.300	0.265	-0.001	5.020	0.221	0.257	-0.003
4.750	0.222	0.246	-0.003	4.870	0.340	0.269	-0.001	5.020	0.260	0.260	-0.002
4.750	0.262	0.242	-0.002	4.870	0.379	0.270	0.000	5.020	0.299	0.266	0.000
4.750	0.301	0.257	-0.001	4.900	0.261	0.261	-0.003	5.020	0.339	0.269	0.000
4.750	0.340	0.267	-0.001	4.900	0.300	0.269	0.000	5.020	0.378	0.271	0.000
4.750	0.379	0.272	0.000	4.900	0.339	0.270	-0.001	5.020	0.417	0.275	0.000
4.750	0.419	0.267	0.000	4.900	0.379	0.268	-0.002	5.020	0.457	0.272	0.000
4.750	0.458	0.260	-0.001	4.900	0.418	0.270	0.001	5.020	0.496	0.264	-0.001
4.750	0.497	0.260	-0.001	4.900	0.457	0.268	0.002	5.020	0.535	0.245	-0.002
4.750	0.537	0.250	-0.001	4.900	0.497	0.267	0.001	5.020	0.575	0.215	-0.002
4.750	0.576	0.208	-0.001	4.900	0.536	0.252	-0.002	5.060	0.024	0.219	-0.002
4.790	0.025	0.183	-0.001	4.900	0.575	0.215	-0.001	5.060	0.063	0.230	-0.002
4.790	0.065	0.220	-0.002	4.910	0.025	0.118	-0.001	5.060	0.103	0.257	-0.001
4.790	0.104	0.239	-0.002	4.910	0.064	0.222	0.000	5.060	0.142	0.262	-0.001
4.790	0.143	0.247	-0.003	4.910	0.103	0.240	-0.001	5.060	0.181	0.266	-0.001
4.790	0.183	0.249	-0.005	4.910	0.143	0.255	-0.002	5.060	0.221	0.263	-0.001
4.790	0.222	0.250	-0.003	4.910	0.182	0.259	-0.002	5.060	0.260	0.259	-0.001
4.790	0.261	0.252	-0.004	4.910	0.221	0.259	-0.002	5.060	0.299	0.268	-0.001
4.790	0.301	0.265	-0.002	4.940	0.064	0.220	0.000	5.060	0.339	0.275	-0.001
4.790	0.340	0.271	-0.001	4.940	0.103	0.248	-0.001	5.060	0.378	0.277	0.000
4.790	0.379	0.272	-0.002	4.940	0.143	0.258	-0.002	5.060	0.417	0.277	-0.001
4.790	0.419	0.268	-0.001	4.940	0.182	0.261	-0.002	5.060	0.457	0.273	0.000



5.060	0.496	0.270	0.000	5.220	0.220	0.263	-0.001	5.340	0.534	0.266	-0.001
5.060	0.535	0.248	-0.003	5.220	0.259	0.266	-0.002	5.340	0.573	0.239	-0.001
5.060	0.575	0.225	-0.003	5.220	0.298	0.273	0.001	5.380	0.022	0.208	-0.001
5.100	0.024	0.229	-0.002	5.220	0.338	0.279	0.000	5.380	0.062	0.238	-0.001
5.100	0.063	0.234	-0.002	5.220	0.377	0.279	-0.001	5.380	0.101	0.252	-0.002
5.100	0.102	0.259	0.000	5.220	0.416	0.280	-0.001	5.380	0.140	0.257	-0.001
5.100	0.142	0.264	0.000	5.220	0.456	0.279	-0.001	5.380	0.180	0.264	0.000
5.100	0.181	0.264	0.000	5.220	0.495	0.276	0.000	5.380	0.219	0.267	0.000
5.100	0.220	0.261	-0.002	5.220	0.534	0.259	-0.001	5.380	0.258	0.266	0.000
5.100	0.260	0.261	-0.002	5.220	0.574	0.241	-0.002	5.380	0.298	0.271	0.000
5.100	0.299	0.267	-0.001	5.260	0.023	0.207	-0.002	5.380	0.337	0.274	0.001
5.100	0.338	0.272	0.000	5.260	0.062	0.216	-0.002	5.380	0.376	0.278	0.000
5.100	0.378	0.274	0.000	5.260	0.102	0.254	-0.002	5.380	0.416	0.278	-0.001
5.100	0.417	0.275	-0.001	5.260	0.141	0.261	-0.001	5.380	0.455	0.278	0.000
5.100	0.456	0.269	0.000	5.260	0.180	0.262	-0.001	5.380	0.494	0.274	-0.001
5.100	0.496	0.271	0.000	5.260	0.220	0.268	-0.002	5.380	0.534	0.260	-0.001
5.100	0.535	0.253	-0.004	5.260	0.259	0.270	-0.001	5.380	0.573	0.239	-0.002
5.100	0.574	0.233	-0.004	5.260	0.298	0.275	0.000	5.420	0.022	0.196	0.000
5.140	0.024	0.233	-0.002	5.260	0.338	0.280	-0.001	5.420	0.062	0.233	-0.002
5.140	0.063	0.243	-0.001	5.260	0.377	0.281	-0.001	5.420	0.101	0.252	-0.001
5.140	0.102	0.260	-0.002	5.260	0.416	0.278	-0.001	5.420	0.140	0.257	0.000
5.140	0.142	0.264	-0.003	5.260	0.456	0.277	-0.001	5.420	0.180	0.261	-0.001
5.140	0.181	0.264	-0.001	5.260	0.495	0.277	0.000	5.420	0.219	0.268	-0.001
5.140	0.220	0.261	-0.002	5.260	0.534	0.262	0.000	5.420	0.258	0.265	-0.001
5.140	0.260	0.261	-0.002	5.260	0.574	0.236	-0.001	5.420	0.298	0.268	0.000
5.140	0.299	0.264	-0.001	5.300	0.023	0.181	-0.002	5.420	0.337	0.273	0.000
5.140	0.338	0.272	0.000	5.300	0.062	0.220	-0.001	5.420	0.376	0.275	0.000
5.140	0.378	0.273	0.000	5.300	0.101	0.250	-0.001	5.420	0.416	0.276	0.000
5.140	0.417	0.274	-0.001	5.300	0.141	0.261	-0.001	5.420	0.455	0.267	0.000
5.140	0.456	0.274	-0.001	5.300	0.180	0.265	-0.002	5.420	0.494	0.263	-0.001
5.140	0.496	0.272	-0.001	5.300	0.219	0.269	-0.002	5.420	0.533	0.258	-0.002
5.140	0.535	0.254	-0.003	5.300	0.259	0.273	-0.001	5.420	0.573	0.236	-0.002
5.140	0.574	0.239	-0.004	5.300	0.298	0.274	0.000	5.460	0.022	0.192	-0.001
5.180	0.023	0.228	-0.002	5.300	0.337	0.276	0.000	5.460	0.061	0.236	-0.002
5.180	0.063	0.246	-0.002	5.300	0.377	0.275	-0.001	5.460	0.101	0.250	-0.003
5.180	0.102	0.259	-0.003	5.300	0.416	0.278	-0.001	5.460	0.140	0.253	-0.002
5.180	0.141	0.267	-0.002	5.300	0.455	0.276	-0.001	5.460	0.179	0.260	0.000
5.180	0.181	0.269	-0.001	5.300	0.495	0.277	-0.001	5.460	0.219	0.268	-0.001
5.180	0.220	0.264	-0.003	5.300	0.534	0.266	-0.001	5.460	0.258	0.264	0.000
5.180	0.259	0.263	-0.003	5.300	0.573	0.237	-0.001	5.460	0.297	0.266	-0.001
5.180	0.299	0.270	0.000	5.340	0.023	0.178	0.000	5.460	0.337	0.270	-0.001
5.180	0.338	0.277	0.000	5.340	0.062	0.231	-0.001	5.460	0.376	0.271	-0.001
5.180	0.377	0.276	-0.001	5.340	0.101	0.255	-0.001	5.460	0.415	0.272	0.000
5.180	0.417	0.276	-0.001	5.340	0.141	0.259	-0.001	5.460	0.455	0.268	-0.001
5.180	0.456	0.276	-0.001	5.340	0.180	0.263	-0.001	5.460	0.494	0.260	-0.001
5.180	0.495	0.273	-0.001	5.340	0.219	0.269	-0.001	5.460	0.533	0.258	-0.001
5.180	0.535	0.257	-0.003	5.340	0.259	0.268	-0.002	5.460	0.573	0.237	-0.002
5.180	0.574	0.241	-0.003	5.340	0.298	0.270	-0.001	5.500	0.022	0.195	-0.001
5.220	0.023	0.210	-0.003	5.340	0.337	0.273	0.001	5.500	0.061	0.228	-0.001
5.220	0.063	0.239	-0.003	5.340	0.377	0.276	0.001	5.500	0.101	0.252	-0.002
5.220	0.102	0.256	-0.002	5.340	0.416	0.278	0.000	5.500	0.140	0.257	-0.001
5.220	0.141	0.268	-0.001	5.340	0.455	0.279	0.000	5.500	0.179	0.264	0.000
5.220	0.181	0.267	-0.001	5.340	0.495	0.278	-0.001	5.500	0.218	0.266	-0.001







5.500	0.258	0.264	-0.001	5.620	0.572	0.227	-0.001	5.760	0.339	0.276	0.001
5.500	0.297	0.266	-0.001	5.660	0.021	0.214	0.000	5.760	0.379	0.272	0.000
5.500	0.336	0.270	-0.001	5.660	0.060	0.226	-0.001	5.760	0.418	0.256	0.000
5.500	0.376	0.269	0.000	5.660	0.100	0.261	-0.002	5.800	0.025	0.231	-0.001
5.500	0.415	0.271	0.000	5.660	0.139	0.259	-0.002	5.800	0.064	0.256	-0.001
5.500	0.454	0.268	-0.001	5.660	0.178	0.266	-0.002	5.800	0.103	0.267	-0.002
5.500	0.494	0.264	-0.001	5.660	0.218	0.268	-0.002	5.800	0.143	0.270	-0.001
5.500	0.533	0.255	-0.001	5.660	0.257	0.265	-0.003	5.800	0.182	0.272	-0.002
5.500	0.572	0.231	-0.002	5.660	0.296	0.266	-0.004	5.800	0.221	0.273	-0.001
5.540	0.022	0.197	-0.001	5.660	0.336	0.270	-0.003	5.800	0.261	0.277	0.000
5.540	0.061	0.220	-0.001	5.660	0.375	0.266	-0.001	5.800	0.300	0.276	-0.001
5.540	0.100	0.245	-0.001	5.660	0.414	0.271	-0.001	5.800	0.339	0.275	-0.003
5.540	0.140	0.256	-0.003	5.660	0.454	0.273	-0.001	5.800	0.379	0.225	-0.004
5.540	0.179	0.263	-0.001	5.660	0.493	0.262	-0.001	5.840	0.025	0.231	-0.001
5.540	0.218	0.263	-0.002	5.660	0.532	0.251	-0.001	5.840	0.064	0.262	-0.001
5.540	0.258	0.265	-0.001	5.660	0.572	0.229	-0.001	5.840	0.103	0.270	-0.001
5.540	0.297	0.268	-0.001	5.700	0.021	0.225	-0.001	5.840	0.143	0.275	-0.002
5.540	0.336	0.271	-0.001	5.700	0.060	0.234	-0.003	5.840	0.182	0.275	-0.003
5.540	0.376	0.272	0.000	5.700	0.100	0.257	-0.004	5.840	0.221	0.276	-0.002
5.540	0.415	0.270	0.000	5.700	0.139	0.241	-0.002	5.840	0.261	0.282	-0.001
5.540	0.454	0.262	-0.001	5.700	0.178	0.261	-0.003	5.840	0.300	0.280	-0.002
5.540	0.494	0.257	-0.001	5.700	0.218	0.267	-0.003	5.840	0.339	0.275	-0.007
5.540	0.533	0.252	-0.002	5.700	0.257	0.267	-0.003	5.880	0.025	0.218	-0.001
5.540	0.572	0.233	-0.001	5.700	0.296	0.270	-0.002	5.880	0.064	0.262	0.000
5.580	0.021	0.209	0.000	5.700	0.335	0.273	-0.002	5.880	0.103	0.271	-0.001
5.580	0.061	0.225	-0.002	5.700	0.375	0.275	-0.001	5.880	0.143	0.277	-0.001
5.580	0.100	0.256	-0.001	5.700	0.414	0.273	-0.001	5.880	0.182	0.280	-0.003
5.580	0.139	0.261	-0.003	5.700	0.453	0.271	-0.001	5.880	0.221	0.282	-0.002
5.580	0.179	0.265	-0.001	5.700	0.493	0.267	-0.001	5.880	0.261	0.285	-0.003
5.580	0.218	0.265	-0.002	5.700	0.532	0.257	-0.002	5.880	0.300	0.285	-0.003
5.580	0.257	0.266	-0.003	5.700	0.571	0.231	-0.002	5.920	0.025	0.234	0.000
5.580	0.297	0.269	-0.002	5.720	0.025	0.227	-0.001	5.920	0.064	0.266	-0.001
5.580	0.336	0.270	-0.001	5.720	0.064	0.243	-0.001	5.920	0.103	0.274	-0.001
5.580	0.375	0.271	0.000	5.720	0.103	0.257	-0.001	5.920	0.143	0.284	-0.002
5.580	0.415	0.268	0.000	5.720	0.143	0.263	0.000	5.920	0.182	0.285	-0.002
5.580	0.454	0.267	-0.001	5.720	0.182	0.268	-0.001	5.920	0.221	0.287	-0.002
5.580	0.493	0.258	-0.001	5.720	0.221	0.269	-0.001	5.920	0.261	0.291	-0.003
5.580	0.533	0.251	-0.001	5.720	0.261	0.269	0.000	5.920	0.300	0.290	-0.002
5.580	0.572	0.234	-0.001	5.720	0.300	0.272	0.000	5.960	0.025	0.242	0.000
5.620	0.021	0.216	-0.001	5.720	0.339	0.275	0.000	5.960	0.064	0.273	-0.001
5.620	0.061	0.228	-0.001	5.720	0.379	0.274	0.000	5.960	0.103	0.283	-0.001
5.620	0.100	0.256	-0.002	5.720	0.418	0.272	-0.001	5.960	0.143	0.286	-0.003
5.620	0.139	0.263	-0.002	5.720	0.457	0.262	0.003	5.960	0.182	0.290	-0.003
5.620	0.179	0.266	-0.001	5.720	0.497	0.249	0.001	5.960	0.221	0.291	-0.003
5.620	0.218	0.264	-0.002	5.720	0.536	0.242	0.000	5.960	0.261	0.295	-0.004
5.620	0.257	0.266	-0.003	5.760	0.025	0.230	-0.001	5.960	0.300	0.268	-0.016
5.620	0.297	0.268	-0.003	5.760	0.064	0.255	-0.001	6.000	0.025	0.251	-0.001
5.620	0.336	0.268	-0.002	5.760	0.103	0.264	-0.001	6.000	0.064	0.278	-0.001
5.620	0.375	0.263	-0.001	5.760	0.143	0.266	-0.001	6.000	0.103	0.282	-0.002
5.620	0.415	0.264	-0.001	5.760	0.182	0.269	-0.001	6.000	0.143	0.290	-0.002
5.620	0.454	0.264	-0.001	5.760	0.221	0.269	-0.001	6.000	0.182	0.292	-0.003
5.620	0.493	0.258	-0.001	5.760	0.261	0.271	-0.001	6.000	0.221	0.292	-0.002
5.620	0.533	0.248	-0.001	5.760	0.300	0.272	0.000	6.000	0.261	0.295	-0.003



6.000	0.300	0.231	-0.006	6.270	0.182	0.289	-0.001	6.430	0.025	0.236	0.001
6.040	0.025	0.251	0.000	6.270	0.221	0.283	0.000	6.430	0.064	0.269	0.001
6.040	0.064	0.277	0.000	6.270	0.261	0.281	-0.001	6.430	0.103	0.281	0.000
6.040	0.103	0.292	0.000	6.270	0.300	0.279	-0.001	6.430	0.143	0.283	0.000
6.040	0.143	0.295	-0.001	6.270	0.339	0.275	-0.001	6.430	0.182	0.285	0.000
6.040	0.182	0.292	-0.001	6.270	0.379	0.268	0.001	6.430	0.221	0.287	-0.001
6.040	0.221	0.287	-0.001	6.270	0.418	0.259	0.008	6.430	0.261	0.286	-0.001
6.040	0.261	0.287	-0.005	6.280	0.025	0.233	0.000	6.430	0.300	0.283	0.000
6.040	0.300	0.284	-0.007	6.280	0.064	0.277	0.000	6.430	0.339	0.279	0.001
6.080	0.025	0.263	0.000	6.280	0.103	0.287	0.000	6.430	0.379	0.274	0.000
6.080	0.064	0.278	0.000	6.310	0.025	0.239	-0.001	6.430	0.418	0.269	0.001
6.080	0.103	0.288	0.000	6.310	0.064	0.276	0.000	6.430	0.457	0.267	0.001
6.080	0.143	0.293	0.000	6.310	0.103	0.285	0.000	6.430	0.497	0.269	0.002
6.080	0.182	0.293	-0.002	6.310	0.143	0.284	-0.001	6.430	0.536	0.247	-0.001
6.080	0.221	0.289	-0.003	6.310	0.182	0.287	-0.001	6.430	0.575	0.228	0.000
6.080	0.261	0.282	-0.004	6.310	0.221	0.282	0.000	6.470	0.025	0.241	0.001
6.080	0.300	0.222	-0.003	6.310	0.261	0.279	0.000	6.470	0.064	0.260	0.000
6.120	0.025	0.260	0.000	6.310	0.300	0.280	0.000	6.470	0.103	0.275	0.000
6.120	0.064	0.277	0.000	6.310	0.339	0.275	0.000	6.470	0.143	0.283	0.000
6.120	0.103	0.289	0.000	6.310	0.379	0.271	0.000	6.470	0.182	0.284	0.000
6.120	0.143	0.298	-0.001	6.310	0.418	0.268	0.002	6.470	0.221	0.285	0.000
6.120	0.182	0.295	-0.002	6.310	0.457	0.259	0.001	6.470	0.261	0.284	-0.001
6.120	0.221	0.287	-0.003	6.310	0.497	0.182	0.001	6.470	0.300	0.282	0.000
6.120	0.261	0.281	-0.002	6.350	0.025	0.241	0.000	6.470	0.339	0.279	0.001
6.120	0.300	0.281	0.001	6.350	0.064	0.271	-0.001	6.470	0.379	0.273	0.001
6.160	0.025	0.255	0.000	6.350	0.103	0.281	0.000	6.470	0.418	0.268	0.002
6.160	0.064	0.273	0.000	6.350	0.143	0.286	-0.001	6.470	0.457	0.267	0.000
6.160	0.103	0.289	0.000	6.350	0.182	0.286	-0.001	6.470	0.497	0.262	-0.001
6.160	0.143	0.295	-0.001	6.350	0.221	0.283	0.000	6.470	0.536	0.256	0.000
6.160	0.182	0.290	-0.001	6.350	0.261	0.280	0.000	6.470	0.575	0.227	-0.001
6.160	0.221	0.285	-0.001	6.350	0.300	0.280	0.000	6.510	0.025	0.255	0.000
6.160	0.261	0.286	-0.001	6.350	0.339	0.275	-0.001	6.510	0.064	0.256	0.000
6.160	0.300	0.283	0.002	6.350	0.379	0.274	-0.001	6.510	0.103	0.271	0.001
6.160	0.339	0.279	0.003	6.350	0.418	0.272	0.000	6.510	0.143	0.283	0.000
6.200	0.025	0.221	-0.001	6.350	0.457	0.266	0.000	6.510	0.182	0.282	0.001
6.200	0.064	0.271	0.000	6.350	0.497	0.240	0.000	6.510	0.221	0.283	0.000
6.200	0.103	0.287	0.000	6.350	0.536	0.213	-0.001	6.510	0.261	0.283	0.000
6.200	0.143	0.297	-0.002	6.350	0.575	0.195	-0.001	6.510	0.300	0.281	0.001
6.200	0.182	0.292	-0.001	6.390	0.025	0.230	0.000	6.510	0.339	0.280	0.001
6.200	0.221	0.287	0.000	6.390	0.064	0.275	0.000	6.510	0.379	0.265	0.002
6.200	0.261	0.288	0.001	6.390	0.103	0.283	0.000	6.510	0.418	0.262	-0.001
6.200	0.300	0.290	0.002	6.390	0.143	0.281	-0.001	6.510	0.457	0.265	0.001
6.200	0.339	0.266	0.001	6.390	0.182	0.287	-0.001	6.510	0.497	0.262	0.001
6.230	0.300	0.286	0.001	6.390	0.221	0.286	0.000	6.510	0.536	0.252	0.000
6.230	0.339	0.272	-0.001	6.390	0.261	0.284	0.000	6.510	0.575	0.228	-0.001
6.230	0.379	0.253	0.003	6.390	0.300	0.281	-0.001	6.550	0.025	0.253	0.000
6.240	0.025	0.217	-0.001	6.390	0.339	0.281	0.001	6.550	0.064	0.261	0.000
6.240	0.103	0.286	0.000	6.390	0.379	0.277	0.001	6.550	0.103	0.272	0.001
6.240	0.143	0.294	-0.001	6.390	0.418	0.273	0.001	6.550	0.143	0.273	0.000
6.240	0.182	0.289	-0.001	6.390	0.457	0.273	0.000	6.550	0.182	0.276	0.001
6.240	0.221	0.286	0.000	6.390	0.497	0.259	0.001	6.550	0.221	0.277	0.002
6.240	0.261	0.285	0.001	6.390	0.536	0.226	-0.001	6.550	0.261	0.283	0.001
6.270	0.143	0.290	-0.001	6.390	0.575	0.225	-0.001	6.550	0.300	0.279	0.001







6.550	0.339	0.275	0.001	6.710	0.025	0.226	0.000	6.820	0.457	0.259	0.000
6.550	0.379	0.261	0.002	6.710	0.064	0.238	0.001	6.820	0.497	0.258	0.000
6.550	0.418	0.261	0.003	6.710	0.103	0.267	0.000	6.820	0.536	0.244	-0.001
6.550	0.457	0.272	0.002	6.710	0.143	0.282	0.001	6.820	0.575	0.206	-0.001
6.550	0.497	0.263	0.002	6.710	0.182	0.283	0.003	6.830	0.025	0.205	0.000
6.550	0.536	0.254	0.000	6.710	0.221	0.271	0.001	6.830	0.064	0.249	0.001
6.550	0.575	0.237	-0.001	6.710	0.261	0.275	0.001	6.860	0.025	0.217	0.000
6.590	0.025	0.239	0.000	6.710	0.300	0.277	0.002	6.860	0.064	0.248	0.001
6.590	0.064	0.253	0.000	6.710	0.339	0.274	0.002	6.860	0.103	0.268	0.001
6.590	0.103	0.272	0.001	6.710	0.379	0.269	0.002	6.860	0.143	0.276	0.003
6.590	0.143	0.275	0.001	6.710	0.418	0.266	0.002	6.860	0.182	0.276	0.003
6.590	0.182	0.278	0.002	6.710	0.457	0.270	0.001	6.860	0.221	0.271	0.002
6.590	0.221	0.279	0.002	6.710	0.497	0.269	0.002	6.860	0.261	0.273	0.002
6.590	0.261	0.278	0.000	6.710	0.536	0.254	-0.001	6.860	0.300	0.270	0.002
6.590	0.300	0.271	0.000	6.740	0.418	0.254	-0.001	6.860	0.339	0.269	0.002
6.590	0.339	0.271	0.000	6.740	0.457	0.258	0.000	6.860	0.379	0.263	0.001
6.590	0.379	0.266	0.002	6.740	0.497	0.259	0.000	6.860	0.418	0.252	0.000
6.590	0.418	0.265	0.002	6.740	0.536	0.248	-0.002	6.860	0.457	0.257	0.000
6.590	0.457	0.272	0.002	6.740	0.575	0.223	-0.001	6.860	0.497	0.256	0.000
6.590	0.497	0.265	0.002	6.750	0.025	0.227	0.000	6.860	0.536	0.244	-0.002
6.590	0.536	0.254	-0.001	6.750	0.064	0.239	0.000	6.860	0.575	0.193	-0.001
6.590	0.575	0.238	0.000	6.750	0.103	0.264	0.001	6.900	0.025	0.235	0.000
6.630	0.025	0.239	0.000	6.750	0.143	0.272	0.002	6.900	0.064	0.252	0.001
6.630	0.064	0.259	0.000	6.750	0.182	0.274	0.003	6.900	0.103	0.270	0.002
6.630	0.103	0.265	0.000	6.750	0.221	0.266	0.000	6.900	0.143	0.276	0.003
6.630	0.143	0.274	0.001	6.750	0.261	0.273	0.002	6.900	0.182	0.271	0.002
6.630	0.182	0.278	0.002	6.750	0.300	0.274	0.003	6.900	0.221	0.272	0.002
6.630	0.221	0.276	0.002	6.750	0.339	0.271	0.004	6.900	0.261	0.275	0.002
6.630	0.261	0.278	0.001	6.750	0.379	0.261	0.001	6.900	0.300	0.269	0.002
6.630	0.300	0.277	0.001	6.780	0.261	0.272	0.003	6.900	0.339	0.267	0.002
6.630	0.339	0.276	0.000	6.780	0.300	0.271	0.003	6.900	0.379	0.260	0.001
6.630	0.379	0.271	0.002	6.780	0.339	0.267	0.002	6.900	0.418	0.251	0.001
6.630	0.418	0.273	0.001	6.780	0.379	0.262	0.001	6.900	0.457	0.254	-0.001
6.630	0.457	0.276	0.001	6.780	0.418	0.253	0.000	6.900	0.497	0.254	0.000
6.630	0.497	0.268	0.001	6.780	0.457	0.255	0.000	6.900	0.536	0.240	-0.001
6.630	0.536	0.257	-0.001	6.780	0.497	0.259	-0.001	6.900	0.575	0.198	-0.001
6.630	0.575	0.237	0.000	6.780	0.536	0.244	-0.001	6.940	0.025	0.233	0.000
6.670	0.025	0.223	0.000	6.780	0.575	0.217	-0.001	6.940	0.064	0.251	0.001
6.670	0.064	0.248	0.000	6.790	0.025	0.217	0.000	6.940	0.103	0.266	0.001
6.670	0.103	0.268	0.000	6.790	0.064	0.251	0.000	6.940	0.143	0.270	0.002
6.670	0.143	0.283	0.001	6.790	0.103	0.264	0.001	6.940	0.182	0.271	0.002
6.670	0.182	0.283	0.002	6.790	0.143	0.271	0.001	6.940	0.221	0.273	0.002
6.670	0.221	0.276	0.002	6.790	0.182	0.273	0.002	6.940	0.261	0.274	0.002
6.670	0.261	0.277	0.001	6.790	0.221	0.269	0.002	6.940	0.300	0.268	0.001
6.670	0.300	0.277	0.001	6.820	0.103	0.262	0.001	6.940	0.339	0.264	0.002
6.670	0.339	0.275	0.000	6.820	0.143	0.271	0.002	6.940	0.379	0.257	0.000
6.670	0.379	0.277	0.001	6.820	0.182	0.273	0.002	6.940	0.418	0.255	0.000
6.670	0.418	0.276	0.002	6.820	0.221	0.270	0.002	6.940	0.457	0.260	-0.001
6.670	0.457	0.279	0.002	6.820	0.261	0.271	0.003	6.940	0.497	0.253	0.000
6.670	0.497	0.273	0.001	6.820	0.300	0.269	0.002	6.940	0.536	0.239	-0.001
6.670	0.536	0.258	0.000	6.820	0.339	0.270	0.002	6.940	0.575	0.210	0.000
6.670	0.575	0.234	0.000	6.820	0.379	0.264	0.002				
6.700	0.575	0.228	-0.001	6.820	0.418	0.254	0.002				





Vegetation Density 0.0%

X	Y	V <sub>x</sub>	V <sub>y</sub>	X	Y	V <sub>x</sub>	V <sub>y</sub>	X	Y	V <sub>x</sub>	V <sub>y</sub>
0.440	0.036	0.250	-0.007	0.570	0.272	0.317	-0.007	0.690	0.507	0.305	-0.003
0.440	0.076	0.270	-0.009	0.570	0.311	0.318	-0.005	0.690	0.546	0.298	-0.003
0.440	0.115	0.280	-0.005	0.570	0.351	0.317	-0.003	0.690	0.586	0.260	-0.003
0.450	0.155	0.288	-0.007	0.570	0.390	0.314	-0.004	0.720	0.032	0.236	-0.005
0.450	0.194	0.291	-0.007	0.570	0.430	0.311	-0.003	0.720	0.071	0.279	-0.006
0.450	0.234	0.289	-0.007	0.570	0.469	0.310	-0.003	0.720	0.111	0.292	-0.006
0.450	0.273	0.289	-0.003	0.570	0.509	0.310	-0.002	0.720	0.150	0.298	-0.008
0.450	0.313	0.291	-0.002	0.570	0.548	0.294	-0.001	0.730	0.190	0.297	-0.010
0.450	0.353	0.302	-0.004	0.570	0.588	0.259	-0.002	0.730	0.229	0.309	-0.006
0.450	0.392	0.301	-0.005	0.600	0.034	0.241	-0.004	0.730	0.269	0.305	-0.007
0.450	0.432	0.301	-0.003	0.600	0.073	0.292	-0.005	0.730	0.308	0.305	-0.008
0.450	0.471	0.301	-0.004	0.600	0.113	0.300	-0.006	0.730	0.348	0.311	-0.005
0.450	0.511	0.301	-0.002	0.610	0.152	0.301	-0.007	0.730	0.388	0.309	-0.005
0.450	0.550	0.288	0.002	0.610	0.192	0.313	-0.010	0.730	0.427	0.309	-0.002
0.450	0.590	0.230	-0.004	0.610	0.231	0.319	-0.009	0.730	0.467	0.308	-0.001
0.480	0.035	0.253	-0.006	0.610	0.271	0.314	-0.007	0.730	0.506	0.310	-0.001
0.480	0.075	0.279	-0.009	0.610	0.310	0.313	-0.006	0.730	0.546	0.305	-0.001
0.490	0.115	0.291	-0.006	0.610	0.350	0.311	-0.005	0.730	0.585	0.247	-0.002
0.490	0.154	0.298	-0.009	0.610	0.390	0.312	-0.005	0.760	0.031	0.229	-0.005
0.490	0.194	0.302	-0.010	0.610	0.429	0.310	-0.003	0.760	0.070	0.280	-0.005
0.490	0.233	0.300	-0.006	0.610	0.469	0.304	-0.004	0.760	0.110	0.288	-0.005
0.490	0.273	0.301	-0.005	0.610	0.508	0.299	-0.003	0.760	0.150	0.292	-0.004
0.490	0.312	0.308	-0.004	0.610	0.548	0.297	-0.002	0.760	0.189	0.299	-0.005
0.490	0.352	0.310	-0.005	0.610	0.587	0.261	-0.003	0.760	0.229	0.304	-0.003
0.490	0.391	0.306	-0.005	0.640	0.033	0.233	-0.006	0.770	0.268	0.308	-0.005
0.490	0.431	0.305	-0.003	0.640	0.072	0.272	-0.005	0.770	0.308	0.305	-0.005
0.490	0.471	0.304	-0.003	0.640	0.112	0.290	-0.005	0.770	0.347	0.307	-0.006
0.490	0.510	0.298	-0.002	0.640	0.152	0.296	-0.007	0.770	0.387	0.316	-0.005
0.490	0.550	0.292	0.000	0.640	0.191	0.310	-0.009	0.770	0.427	0.313	-0.004
0.490	0.589	0.240	-0.003	0.650	0.231	0.311	-0.008	0.770	0.466	0.309	-0.002
0.520	0.035	0.253	-0.005	0.650	0.270	0.306	-0.007	0.770	0.506	0.304	-0.002
0.520	0.074	0.287	-0.008	0.650	0.310	0.306	-0.006	0.770	0.545	0.302	-0.003
0.520	0.114	0.300	-0.007	0.650	0.349	0.317	-0.005	0.770	0.585	0.230	-0.002
0.520	0.153	0.304	-0.010	0.650	0.389	0.312	-0.004	0.800	0.030	0.256	-0.004
0.530	0.193	0.313	-0.009	0.650	0.428	0.309	-0.002	0.800	0.070	0.277	-0.005
0.530	0.233	0.311	-0.007	0.650	0.468	0.277	-0.004	0.800	0.109	0.288	-0.005
0.530	0.272	0.310	-0.006	0.650	0.508	0.299	-0.004	0.800	0.149	0.299	-0.006
0.530	0.312	0.317	-0.004	0.650	0.547	0.293	-0.003	0.800	0.189	0.308	-0.007
0.530	0.351	0.319	-0.004	0.650	0.587	0.262	-0.004	0.810	0.228	0.307	-0.006
0.530	0.391	0.313	-0.003	0.680	0.032	0.243	-0.006	0.810	0.268	0.306	-0.005
0.530	0.430	0.309	-0.002	0.680	0.072	0.280	-0.006	0.810	0.307	0.305	-0.006
0.530	0.470	0.307	-0.002	0.680	0.111	0.295	-0.004	0.810	0.347	0.308	-0.006
0.530	0.509	0.306	0.001	0.680	0.151	0.302	-0.008	0.810	0.386	0.316	-0.005
0.530	0.549	0.295	0.000	0.690	0.190	0.306	-0.011	0.810	0.426	0.312	-0.004
0.530	0.589	0.252	-0.002	0.690	0.230	0.302	-0.008	0.810	0.465	0.307	-0.004
0.560	0.034	0.254	-0.004	0.690	0.270	0.302	-0.008	0.810	0.505	0.303	-0.003
0.560	0.074	0.293	-0.008	0.690	0.309	0.312	-0.006	0.810	0.545	0.299	-0.003
0.560	0.113	0.309	-0.007	0.690	0.349	0.310	-0.005	0.810	0.584	0.222	-0.004
0.560	0.153	0.313	-0.010	0.690	0.388	0.304	-0.004	0.840	0.030	0.260	-0.005
0.570	0.192	0.319	-0.006	0.690	0.428	0.306	-0.001	0.840	0.069	0.282	-0.005
0.570	0.232	0.316	-0.008	0.690	0.467	0.308	-0.002	0.840	0.109	0.289	-0.006





0.840	0.148	0.303	-0.007	0.970	0.463	0.151	-0.002	1.240	0.023	0.220	-0.002
0.840	0.188	0.309	-0.007	1.000	0.027	0.220	-0.004	1.240	0.063	0.275	-0.004
0.850	0.227	0.311	-0.008	1.000	0.067	0.306	-0.005	1.240	0.102	0.309	-0.005
0.850	0.267	0.308	-0.007	1.000	0.106	0.309	-0.006	1.240	0.142	0.306	-0.004
0.850	0.307	0.306	-0.006	1.000	0.146	0.321	-0.009	1.240	0.181	0.312	-0.005
0.850	0.346	0.313	-0.006	1.000	0.185	0.328	-0.007	1.240	0.221	0.310	-0.004
0.850	0.386	0.319	-0.006	1.000	0.225	0.329	-0.008	1.240	0.261	0.307	-0.005
0.850	0.425	0.313	-0.004	1.000	0.264	0.329	-0.007	1.240	0.300	0.290	0.002
0.850	0.465	0.306	-0.005	1.000	0.304	0.335	-0.008	1.280	0.023	0.213	-0.002
0.850	0.504	0.308	-0.004	1.000	0.344	0.338	-0.007	1.280	0.062	0.267	-0.003
0.850	0.544	0.303	-0.004	1.010	0.383	0.334	-0.010	1.280	0.102	0.298	-0.005
0.850	0.583	0.231	-0.004	1.040	0.026	0.200	-0.002	1.280	0.141	0.298	-0.005
0.880	0.029	0.264	-0.006	1.040	0.066	0.305	-0.004	1.280	0.181	0.296	-0.004
0.880	0.069	0.291	-0.005	1.040	0.106	0.318	-0.005	1.280	0.220	0.300	-0.004
0.880	0.108	0.301	-0.007	1.040	0.145	0.322	-0.006	1.280	0.260	0.295	-0.002
0.880	0.148	0.306	-0.006	1.040	0.185	0.326	-0.008	1.280	0.299	0.231	-0.004
0.880	0.187	0.310	-0.007	1.040	0.224	0.329	-0.009	1.320	0.022	0.214	-0.002
0.880	0.227	0.317	-0.008	1.040	0.264	0.331	-0.008	1.320	0.061	0.255	-0.003
0.880	0.266	0.319	-0.007	1.040	0.303	0.343	-0.008	1.320	0.101	0.292	-0.005
0.890	0.306	0.318	-0.006	1.040	0.343	0.336	-0.021	1.320	0.141	0.299	-0.005
0.890	0.345	0.320	-0.006	1.080	0.026	0.201	-0.003	1.320	0.180	0.297	-0.005
0.890	0.385	0.321	-0.005	1.080	0.065	0.276	-0.004	1.320	0.220	0.299	-0.004
0.890	0.425	0.321	-0.006	1.080	0.105	0.315	-0.005	1.320	0.259	0.294	-0.003
0.890	0.464	0.321	-0.004	1.080	0.144	0.320	-0.005	1.320	0.299	0.265	0.007
0.890	0.504	0.324	-0.004	1.080	0.184	0.324	-0.008	1.360	0.021	0.214	-0.003
0.890	0.543	0.307	-0.004	1.080	0.224	0.333	-0.008	1.360	0.061	0.259	-0.004
0.890	0.583	0.259	-0.005	1.080	0.263	0.334	-0.006	1.360	0.100	0.290	-0.004
0.920	0.028	0.271	-0.006	1.080	0.303	0.342	-0.006	1.360	0.140	0.286	-0.003
0.920	0.068	0.300	-0.006	1.090	0.342	0.334	-0.010	1.360	0.179	0.293	-0.004
0.920	0.107	0.311	-0.006	1.120	0.025	0.222	-0.003	1.360	0.219	0.298	-0.004
0.920	0.147	0.308	-0.006	1.120	0.065	0.284	-0.004	1.360	0.259	0.301	-0.003
0.920	0.187	0.314	-0.008	1.120	0.104	0.324	-0.005	1.360	0.298	0.301	0.001
0.920	0.226	0.321	-0.008	1.120	0.144	0.318	-0.007	1.400	0.021	0.211	-0.003
0.930	0.266	0.318	-0.007	1.120	0.183	0.321	-0.007	1.400	0.060	0.264	-0.003
0.930	0.305	0.319	-0.007	1.120	0.223	0.330	-0.007	1.400	0.100	0.287	-0.005
0.930	0.345	0.326	-0.006	1.120	0.262	0.333	-0.005	1.400	0.139	0.287	-0.004
0.930	0.384	0.333	-0.004	1.120	0.302	0.340	-0.006	1.400	0.179	0.297	-0.006
0.930	0.424	0.334	-0.003	1.160	0.024	0.227	-0.003	1.400	0.218	0.297	-0.004
0.930	0.463	0.327	-0.002	1.160	0.064	0.276	-0.003	1.400	0.258	0.296	-0.003
0.930	0.503	0.304	-0.002	1.160	0.104	0.322	-0.006	1.400	0.298	0.297	-0.004
0.930	0.543	0.165	-0.057	1.160	0.143	0.319	-0.006	1.400	0.337	0.296	0.044
0.930	0.582	0.103	-0.002	1.160	0.183	0.314	-0.005	1.440	0.020	0.223	-0.004
0.960	0.028	0.234	-0.004	1.160	0.222	0.327	-0.004	1.440	0.060	0.263	-0.003
0.960	0.067	0.303	-0.006	1.160	0.262	0.324	-0.005	1.440	0.099	0.284	-0.005
0.960	0.107	0.317	-0.006	1.160	0.301	0.319	-0.008	1.440	0.139	0.288	-0.005
0.960	0.146	0.317	-0.008	1.200	0.024	0.225	-0.003	1.440	0.178	0.290	-0.004
0.960	0.186	0.320	-0.009	1.200	0.063	0.280	-0.005	1.440	0.218	0.291	-0.002
0.960	0.225	0.320	-0.007	1.200	0.103	0.312	-0.006	1.440	0.257	0.288	-0.003
0.960	0.265	0.316	-0.007	1.200	0.142	0.312	-0.005	1.440	0.297	0.292	-0.005
0.960	0.305	0.332	-0.007	1.200	0.182	0.313	-0.004	1.440	0.336	0.293	-0.002
0.970	0.344	0.335	-0.006	1.200	0.222	0.320	-0.005	1.480	0.019	0.230	-0.004
0.970	0.384	0.336	-0.006	1.200	0.261	0.320	-0.005	1.480	0.059	0.263	-0.002
0.970	0.423	0.337	-0.007	1.200	0.301	0.319	-0.008	1.480	0.098	0.286	-0.005



1.480	0.138	0.287	-0.005	1.640	0.096	0.287	-0.004	1.760	0.410	0.302	-0.004
1.480	0.178	0.290	-0.004	1.640	0.135	0.293	-0.004	1.760	0.450	0.297	-0.003
1.480	0.217	0.299	-0.004	1.640	0.175	0.289	-0.004	1.760	0.489	0.296	-0.004
1.480	0.257	0.296	-0.004	1.640	0.215	0.289	-0.004	1.760	0.529	0.288	-0.004
1.480	0.296	0.290	-0.003	1.640	0.254	0.292	-0.004	1.760	0.569	0.265	-0.004
1.480	0.336	0.298	-0.003	1.640	0.294	0.297	-0.004	1.800	0.014	0.230	-0.004
1.480	0.375	0.305	-0.003	1.640	0.333	0.300	-0.003	1.800	0.054	0.251	-0.003
1.480	0.415	0.319	-0.001	1.640	0.373	0.301	-0.003	1.800	0.093	0.281	-0.005
1.520	0.019	0.233	-0.003	1.640	0.412	0.301	-0.004	1.800	0.133	0.290	-0.005
1.520	0.058	0.260	-0.004	1.640	0.452	0.296	-0.004	1.800	0.172	0.291	-0.003
1.520	0.098	0.285	-0.006	1.640	0.491	0.290	-0.005	1.800	0.212	0.295	-0.004
1.520	0.137	0.290	-0.005	1.640	0.531	0.280	-0.004	1.800	0.251	0.295	-0.004
1.520	0.177	0.292	-0.004	1.640	0.571	0.252	-0.004	1.800	0.291	0.298	-0.005
1.520	0.216	0.297	-0.006	1.680	0.016	0.241	-0.003	1.800	0.331	0.298	-0.005
1.520	0.256	0.293	-0.006	1.680	0.056	0.252	-0.003	1.800	0.370	0.298	-0.004
1.520	0.296	0.289	-0.004	1.680	0.095	0.282	-0.004	1.800	0.410	0.305	-0.004
1.520	0.335	0.299	-0.004	1.680	0.135	0.287	-0.004	1.800	0.449	0.304	-0.004
1.520	0.375	0.305	-0.004	1.680	0.174	0.290	-0.004	1.800	0.489	0.301	-0.005
1.520	0.414	0.308	-0.005	1.680	0.214	0.290	-0.004	1.800	0.528	0.289	-0.004
1.520	0.454	0.295	-0.003	1.680	0.253	0.292	-0.004	1.800	0.568	0.263	-0.003
1.520	0.493	0.103	0.007	1.680	0.293	0.297	-0.004	1.840	0.013	0.230	-0.003
1.560	0.018	0.232	-0.004	1.680	0.333	0.299	-0.003	1.840	0.053	0.252	-0.003
1.560	0.058	0.264	-0.004	1.680	0.372	0.298	-0.004	1.840	0.093	0.271	-0.003
1.560	0.097	0.284	-0.004	1.680	0.412	0.300	-0.004	1.840	0.132	0.270	-0.003
1.560	0.137	0.287	-0.005	1.680	0.451	0.300	-0.004	1.840	0.172	0.287	-0.003
1.560	0.176	0.289	-0.004	1.680	0.491	0.294	-0.003	1.840	0.211	0.295	-0.004
1.560	0.216	0.289	-0.001	1.680	0.530	0.284	-0.003	1.840	0.251	0.296	-0.006
1.560	0.255	0.290	-0.004	1.680	0.570	0.259	-0.005	1.840	0.290	0.297	-0.005
1.560	0.295	0.295	-0.003	1.720	0.015	0.236	-0.004	1.840	0.330	0.300	-0.005
1.560	0.334	0.301	-0.002	1.720	0.055	0.249	-0.004	1.840	0.370	0.302	-0.004
1.560	0.374	0.303	-0.003	1.720	0.095	0.279	-0.004	1.840	0.409	0.307	-0.005
1.560	0.414	0.305	-0.005	1.720	0.134	0.285	-0.004	1.840	0.449	0.300	-0.004
1.560	0.453	0.298	-0.005	1.720	0.174	0.291	-0.003	1.840	0.488	0.296	-0.005
1.570	0.493	0.286	-0.004	1.720	0.213	0.296	-0.004	1.840	0.528	0.286	-0.005
1.570	0.532	0.273	-0.003	1.720	0.253	0.296	-0.005	1.840	0.567	0.263	-0.004
1.570	0.572	0.245	-0.003	1.720	0.292	0.300	-0.005	1.880	0.013	0.227	-0.003
1.600	0.017	0.225	-0.004	1.720	0.332	0.300	-0.004	1.880	0.052	0.262	-0.003
1.600	0.057	0.270	-0.003	1.720	0.371	0.301	-0.004	1.880	0.092	0.277	-0.002
1.600	0.096	0.287	-0.004	1.720	0.411	0.303	-0.004	1.880	0.132	0.282	-0.003
1.600	0.136	0.287	-0.005	1.720	0.451	0.299	-0.003	1.880	0.171	0.286	-0.002
1.600	0.176	0.287	-0.005	1.720	0.490	0.293	-0.003	1.880	0.211	0.289	-0.003
1.600	0.215	0.287	-0.003	1.720	0.530	0.287	-0.004	1.880	0.250	0.291	-0.005
1.600	0.255	0.291	-0.003	1.730	0.569	0.262	-0.004	1.880	0.290	0.294	-0.005
1.600	0.294	0.297	-0.003	1.760	0.015	0.239	-0.003	1.880	0.329	0.296	-0.004
1.600	0.334	0.301	-0.003	1.760	0.054	0.252	-0.002	1.880	0.369	0.298	-0.004
1.600	0.373	0.304	-0.004	1.760	0.094	0.284	-0.004	1.880	0.408	0.299	-0.004
1.600	0.413	0.305	-0.004	1.760	0.133	0.287	-0.005	1.880	0.448	0.295	-0.005
1.600	0.453	0.295	-0.004	1.760	0.173	0.288	-0.003	1.880	0.488	0.293	-0.004
1.600	0.492	0.288	-0.003	1.760	0.213	0.296	-0.003	1.880	0.527	0.282	-0.004
1.610	0.532	0.281	-0.003	1.760	0.252	0.298	-0.004	1.880	0.567	0.254	-0.005
1.610	0.571	0.252	-0.004	1.760	0.292	0.296	-0.004	1.910	0.012	0.237	-0.003
1.640	0.017	0.229	-0.004	1.760	0.331	0.295	-0.004	1.920	0.052	0.274	-0.001
1.640	0.056	0.252	-0.004	1.760	0.371	0.296	-0.004	1.920	0.091	0.284	-0.004







1.920	0.131	0.281	-0.008	2.070	0.103	0.263	-0.001	2.190	0.417	0.284	0.000
1.920	0.170	0.263	-0.006	2.080	0.143	0.265	-0.002	2.190	0.457	0.286	0.000
1.920	0.210	0.275	-0.006	2.080	0.182	0.260	-0.001	2.190	0.496	0.282	-0.001
1.920	0.250	0.298	-0.006	2.080	0.221	0.270	-0.001	2.190	0.535	0.265	0.000
1.920	0.289	0.302	-0.004	2.080	0.261	0.278	-0.004	2.190	0.575	0.191	-0.001
1.920	0.329	0.295	-0.004	2.080	0.300	0.279	-0.004	2.230	0.024	0.178	0.000
1.920	0.368	0.284	-0.004	2.080	0.339	0.284	-0.001	2.230	0.063	0.226	-0.001
1.920	0.408	0.300	-0.004	2.080	0.379	0.286	0.000	2.230	0.103	0.259	-0.001
1.920	0.447	0.293	-0.003	2.080	0.418	0.284	0.001	2.230	0.142	0.269	-0.001
1.920	0.526	0.278	-0.005	2.080	0.457	0.281	-0.001	2.230	0.181	0.272	-0.002
1.920	0.566	0.246	-0.009	2.080	0.497	0.283	-0.001	2.230	0.221	0.274	-0.001
1.960	0.025	0.200	-0.001	2.080	0.536	0.274	-0.001	2.230	0.260	0.278	-0.002
1.960	0.065	0.247	-0.001	2.080	0.575	0.186	-0.001	2.230	0.299	0.276	-0.002
1.960	0.104	0.266	-0.002	2.110	0.025	0.163	-0.002	2.230	0.338	0.276	-0.001
1.960	0.143	0.269	-0.004	2.110	0.064	0.240	0.000	2.230	0.378	0.283	0.000
1.960	0.183	0.275	-0.005	2.110	0.103	0.260	0.001	2.230	0.417	0.283	0.000
1.960	0.222	0.280	-0.002	2.110	0.143	0.270	-0.001	2.230	0.456	0.284	0.001
1.960	0.261	0.280	0.001	2.110	0.182	0.268	-0.004	2.230	0.496	0.277	0.001
1.960	0.301	0.280	0.000	2.110	0.221	0.275	-0.003	2.230	0.535	0.265	0.000
1.960	0.340	0.280	-0.002	2.110	0.260	0.278	-0.004	2.230	0.574	0.205	-0.001
1.960	0.379	0.285	-0.001	2.110	0.300	0.275	-0.003	2.270	0.024	0.180	0.000
1.960	0.419	0.281	-0.001	2.110	0.339	0.284	-0.001	2.270	0.063	0.204	-0.002
1.960	0.458	0.286	0.000	2.110	0.378	0.283	-0.002	2.270	0.102	0.253	-0.001
1.960	0.537	0.278	0.000	2.120	0.418	0.279	-0.003	2.270	0.142	0.261	-0.001
1.960	0.576	0.210	0.000	2.120	0.457	0.282	-0.001	2.270	0.181	0.273	-0.002
2.000	0.025	0.182	-0.002	2.120	0.496	0.284	0.001	2.270	0.220	0.275	-0.001
2.000	0.065	0.247	-0.002	2.120	0.536	0.279	0.001	2.270	0.260	0.275	-0.001
2.000	0.104	0.271	-0.003	2.120	0.575	0.196	0.000	2.270	0.299	0.278	-0.001
2.000	0.143	0.264	-0.005	2.150	0.024	0.179	-0.001	2.270	0.338	0.286	-0.001
2.000	0.182	0.267	-0.002	2.150	0.064	0.230	-0.001	2.270	0.378	0.288	0.000
2.000	0.222	0.281	-0.002	2.150	0.103	0.258	-0.003	2.270	0.417	0.287	-0.001
2.000	0.261	0.284	-0.001	2.150	0.142	0.265	-0.002	2.270	0.456	0.287	0.000
2.000	0.340	0.279	-0.001	2.150	0.182	0.278	-0.001	2.270	0.496	0.281	0.000
2.000	0.379	0.284	0.001	2.150	0.221	0.280	-0.002	2.270	0.535	0.259	0.004
2.000	0.418	0.288	-0.001	2.150	0.260	0.276	-0.004	2.270	0.574	0.214	-0.002
2.000	0.458	0.289	0.000	2.150	0.300	0.273	-0.003	2.310	0.023	0.173	0.000
2.000	0.497	0.288	-0.001	2.150	0.339	0.276	-0.002	2.310	0.063	0.218	-0.001
2.000	0.536	0.277	-0.002	2.150	0.378	0.279	-0.001	2.310	0.102	0.244	-0.002
2.000	0.576	0.181	0.001	2.150	0.418	0.283	-0.001	2.310	0.141	0.244	0.000
2.040	0.025	0.180	0.001	2.150	0.457	0.289	0.001	2.310	0.181	0.265	-0.001
2.040	0.064	0.246	-0.003	2.150	0.496	0.287	0.002	2.310	0.220	0.276	-0.003
2.040	0.104	0.271	-0.003	2.150	0.535	0.275	0.001	2.310	0.259	0.278	-0.002
2.040	0.143	0.267	-0.005	2.150	0.575	0.192	-0.001	2.310	0.299	0.278	-0.002
2.040	0.182	0.265	-0.003	2.190	0.024	0.186	-0.001	2.310	0.338	0.280	-0.002
2.040	0.222	0.271	-0.003	2.190	0.063	0.233	-0.002	2.310	0.377	0.287	-0.002
2.040	0.261	0.275	-0.002	2.190	0.103	0.255	-0.003	2.310	0.417	0.288	-0.001
2.040	0.340	0.282	-0.001	2.190	0.142	0.259	-0.001	2.310	0.456	0.289	-0.002
2.040	0.418	0.284	0.001	2.190	0.181	0.270	-0.002	2.310	0.495	0.285	-0.002
2.040	0.457	0.284	0.000	2.190	0.221	0.277	-0.002	2.310	0.535	0.270	0.003
2.040	0.536	0.275	-0.002	2.190	0.260	0.279	-0.003	2.310	0.574	0.212	-0.001
2.040	0.575	0.167	-0.001	2.190	0.299	0.278	-0.003	2.350	0.023	0.199	0.000
2.070	0.025	0.174	-0.001	2.190	0.339	0.275	-0.003	2.350	0.063	0.233	-0.001
2.070	0.064	0.238	0.000	2.190	0.378	0.280	-0.002	2.350	0.102	0.270	-0.003





2.350	0.141	0.272	-0.001	2.470	0.494	0.285	-0.001	2.630	0.258	0.271	-0.002
2.350	0.181	0.272	-0.003	2.470	0.534	0.261	-0.001	2.630	0.297	0.272	-0.001
2.350	0.220	0.272	-0.002	2.470	0.573	0.219	0.000	2.630	0.336	0.276	-0.001
2.350	0.259	0.271	-0.003	2.510	0.022	0.207	-0.001	2.630	0.376	0.278	0.000
2.350	0.299	0.277	-0.001	2.510	0.062	0.228	-0.003	2.630	0.415	0.281	0.000
2.350	0.338	0.281	-0.002	2.510	0.101	0.259	-0.005	2.630	0.454	0.278	0.001
2.350	0.377	0.294	-0.003	2.510	0.140	0.265	-0.003	2.630	0.494	0.266	-0.001
2.350	0.416	0.297	-0.002	2.510	0.180	0.267	-0.004	2.630	0.533	0.260	-0.003
2.350	0.456	0.284	-0.002	2.510	0.219	0.278	-0.001	2.630	0.572	0.211	0.000
2.350	0.495	0.279	-0.001	2.510	0.258	0.284	-0.001	2.670	0.022	0.189	0.000
2.350	0.534	0.273	0.002	2.510	0.337	0.274	-0.001	2.670	0.061	0.220	-0.002
2.350	0.574	0.198	-0.001	2.510	0.376	0.282	-0.002	2.670	0.100	0.263	-0.001
2.390	0.023	0.201	0.001	2.510	0.416	0.283	-0.002	2.670	0.140	0.260	-0.001
2.390	0.062	0.237	-0.002	2.510	0.455	0.285	-0.002	2.670	0.179	0.263	-0.001
2.390	0.102	0.276	-0.002	2.510	0.494	0.283	0.001	2.670	0.218	0.271	0.000
2.390	0.141	0.271	0.000	2.510	0.534	0.257	-0.001	2.670	0.257	0.274	-0.001
2.390	0.180	0.272	0.001	2.510	0.573	0.215	-0.002	2.670	0.297	0.270	-0.001
2.390	0.220	0.277	-0.001	2.550	0.022	0.199	0.000	2.670	0.336	0.273	-0.001
2.390	0.259	0.277	-0.002	2.550	0.062	0.226	-0.002	2.670	0.375	0.278	-0.001
2.390	0.298	0.279	-0.001	2.550	0.101	0.258	-0.003	2.670	0.415	0.275	0.000
2.390	0.338	0.285	0.000	2.550	0.140	0.256	-0.005	2.670	0.454	0.274	0.001
2.390	0.377	0.288	0.000	2.550	0.179	0.262	-0.005	2.670	0.493	0.271	0.000
2.390	0.416	0.280	-0.002	2.550	0.219	0.280	0.002	2.670	0.533	0.263	-0.002
2.390	0.456	0.279	0.000	2.550	0.258	0.282	0.000	2.670	0.572	0.217	-0.002
2.390	0.495	0.278	0.001	2.550	0.297	0.278	-0.002	2.700	0.021	0.199	0.001
2.390	0.534	0.267	-0.001	2.550	0.337	0.281	-0.002	2.700	0.061	0.220	-0.001
2.390	0.574	0.198	-0.001	2.550	0.376	0.282	-0.001	2.700	0.100	0.252	-0.001
2.430	0.062	0.234	-0.002	2.550	0.415	0.286	-0.001	2.700	0.139	0.257	0.000
2.430	0.101	0.270	-0.001	2.550	0.455	0.284	0.000	2.700	0.179	0.254	-0.001
2.430	0.141	0.272	0.002	2.550	0.494	0.265	0.001	2.710	0.218	0.257	-0.001
2.430	0.180	0.280	-0.001	2.550	0.533	0.253	0.001	2.710	0.257	0.272	-0.001
2.430	0.219	0.275	-0.002	2.550	0.573	0.213	-0.002	2.710	0.297	0.272	-0.002
2.430	0.259	0.272	-0.001	2.590	0.022	0.193	-0.001	2.710	0.336	0.274	-0.002
2.430	0.298	0.287	-0.004	2.590	0.061	0.218	0.000	2.710	0.375	0.275	-0.001
2.430	0.337	0.285	-0.001	2.590	0.101	0.257	-0.001	2.710	0.415	0.279	-0.001
2.430	0.377	0.283	0.002	2.590	0.140	0.258	-0.002	2.710	0.454	0.280	-0.001
2.430	0.416	0.284	0.002	2.590	0.179	0.259	-0.001	2.710	0.493	0.265	0.001
2.430	0.455	0.282	0.000	2.590	0.219	0.269	-0.001	2.710	0.533	0.252	0.000
2.430	0.495	0.270	-0.001	2.590	0.258	0.276	-0.002	2.710	0.572	0.217	-0.001
2.430	0.534	0.255	-0.002	2.590	0.297	0.277	-0.002	2.740	0.021	0.203	0.000
2.430	0.573	0.203	-0.001	2.590	0.337	0.279	-0.002	2.740	0.060	0.218	0.000
2.470	0.023	0.199	-0.001	2.590	0.376	0.281	-0.002	2.740	0.100	0.262	-0.001
2.470	0.062	0.229	-0.005	2.590	0.415	0.285	0.000	2.740	0.139	0.264	-0.001
2.470	0.101	0.263	-0.003	2.590	0.455	0.284	-0.001	2.740	0.178	0.253	-0.001
2.470	0.141	0.263	-0.003	2.590	0.494	0.280	0.001	2.740	0.218	0.254	-0.002
2.470	0.180	0.278	-0.003	2.590	0.533	0.260	-0.001	2.740	0.257	0.264	-0.001
2.470	0.219	0.278	-0.002	2.590	0.572	0.213	-0.001	2.740	0.296	0.267	-0.002
2.470	0.259	0.270	-0.002	2.630	0.022	0.192	0.000	2.740	0.336	0.272	-0.002
2.470	0.298	0.275	-0.002	2.630	0.061	0.220	-0.001	2.740	0.375	0.276	-0.001
2.470	0.337	0.279	-0.002	2.630	0.100	0.254	-0.002	2.740	0.414	0.275	-0.002
2.470	0.377	0.287	-0.002	2.630	0.140	0.257	0.000	2.740	0.454	0.280	-0.003
2.470	0.416	0.290	-0.001	2.630	0.179	0.261	-0.001	2.740	0.493	0.275	-0.003
2.470	0.455	0.284	0.000	2.630	0.218	0.264	-0.001	2.750	0.532	0.263	-0.001





2.750	0.572	0.220	-0.001	2.900	0.335	0.274	-0.001	3.060	0.098	0.235	-0.001
2.780	0.021	0.205	0.000	2.900	0.374	0.274	-0.002	3.060	0.137	0.242	-0.004
2.780	0.060	0.216	0.000	2.900	0.413	0.268	-0.003	3.060	0.177	0.247	-0.003
2.780	0.100	0.258	-0.002	2.900	0.453	0.271	-0.001	3.060	0.216	0.257	-0.001
2.780	0.139	0.259	-0.001	2.900	0.492	0.266	0.000	3.060	0.255	0.257	-0.001
2.780	0.178	0.261	-0.002	2.900	0.531	0.253	-0.001	3.060	0.295	0.254	-0.002
2.780	0.218	0.268	-0.001	2.900	0.571	0.234	-0.001	3.060	0.334	0.269	-0.002
2.780	0.296	0.269	-0.001	2.940	0.020	0.198	-0.002	3.060	0.373	0.269	-0.002
2.780	0.335	0.266	-0.002	2.940	0.059	0.212	-0.003	3.060	0.413	0.259	-0.002
2.780	0.375	0.276	-0.002	2.940	0.099	0.241	-0.003	3.060	0.452	0.264	0.001
2.780	0.414	0.277	-0.002	2.940	0.138	0.245	-0.001	3.060	0.491	0.262	-0.001
2.780	0.453	0.280	-0.002	2.940	0.177	0.253	-0.001	3.060	0.531	0.242	-0.001
2.780	0.493	0.270	-0.003	2.940	0.217	0.259	0.001	3.060	0.570	0.224	-0.001
2.780	0.532	0.256	-0.002	2.940	0.256	0.264	0.001	3.100	0.019	0.207	0.000
2.780	0.571	0.227	-0.001	2.940	0.295	0.268	-0.001	3.100	0.098	0.239	-0.002
2.820	0.021	0.192	-0.002	2.940	0.335	0.274	-0.001	3.100	0.137	0.247	-0.004
2.820	0.060	0.205	-0.001	2.940	0.374	0.277	0.000	3.100	0.177	0.255	-0.003
2.820	0.099	0.250	0.000	2.940	0.413	0.266	-0.002	3.100	0.216	0.264	0.002
2.820	0.139	0.258	-0.001	2.940	0.453	0.271	-0.002	3.100	0.255	0.266	-0.001
2.820	0.178	0.261	-0.001	2.940	0.492	0.269	-0.001	3.100	0.294	0.265	-0.001
2.820	0.217	0.261	-0.001	2.940	0.531	0.249	-0.001	3.100	0.334	0.262	-0.002
2.820	0.257	0.267	-0.001	2.980	0.020	0.207	-0.001	3.100	0.373	0.267	-0.002
2.820	0.296	0.269	0.001	2.980	0.059	0.219	-0.001	3.100	0.412	0.268	-0.001
2.820	0.335	0.275	-0.002	2.980	0.099	0.241	-0.002	3.100	0.452	0.263	-0.001
2.820	0.375	0.279	-0.002	2.980	0.138	0.251	-0.003	3.100	0.491	0.262	-0.001
2.820	0.414	0.278	0.000	2.980	0.177	0.255	-0.001	3.100	0.530	0.244	-0.001
2.820	0.453	0.275	0.000	2.980	0.216	0.263	-0.001	3.100	0.570	0.221	-0.001
2.820	0.493	0.264	-0.001	2.980	0.256	0.265	0.000	3.140	0.019	0.206	0.001
2.820	0.532	0.251	-0.003	2.980	0.295	0.253	-0.003	3.140	0.058	0.222	-0.001
2.820	0.571	0.225	0.001	2.980	0.334	0.264	-0.003	3.140	0.098	0.239	-0.003
2.860	0.021	0.200	-0.004	2.980	0.374	0.275	0.000	3.140	0.137	0.245	-0.001
2.860	0.060	0.217	-0.002	2.980	0.413	0.274	0.001	3.140	0.176	0.254	0.001
2.860	0.099	0.253	-0.002	2.980	0.452	0.277	0.000	3.140	0.216	0.259	0.002
2.860	0.138	0.258	-0.001	2.980	0.492	0.271	-0.001	3.140	0.255	0.259	0.002
2.860	0.178	0.258	0.000	2.980	0.531	0.249	-0.001	3.140	0.294	0.261	0.002
2.860	0.217	0.263	-0.001	2.980	0.570	0.230	-0.001	3.140	0.334	0.262	-0.001
2.860	0.256	0.271	0.001	3.020	0.020	0.208	0.000	3.140	0.412	0.271	-0.001
2.860	0.296	0.272	0.001	3.020	0.059	0.218	-0.001	3.140	0.452	0.267	-0.001
2.860	0.335	0.278	-0.002	3.020	0.098	0.237	-0.002	3.140	0.491	0.262	-0.002
2.860	0.374	0.277	-0.002	3.020	0.138	0.248	-0.003	3.140	0.530	0.247	-0.001
2.860	0.414	0.271	0.000	3.020	0.177	0.252	-0.002	3.140	0.569	0.220	-0.001
2.860	0.453	0.275	0.000	3.020	0.216	0.258	-0.001	3.180	0.058	0.229	-0.003
2.860	0.492	0.270	-0.001	3.020	0.256	0.263	0.000	3.180	0.097	0.250	-0.004
2.860	0.532	0.256	-0.002	3.020	0.295	0.265	-0.001	3.180	0.137	0.247	-0.003
2.860	0.571	0.227	0.000	3.020	0.334	0.265	-0.003	3.180	0.176	0.247	-0.003
2.900	0.020	0.201	-0.002	3.020	0.374	0.271	-0.001	3.180	0.215	0.260	-0.001
2.900	0.060	0.217	-0.002	3.020	0.413	0.271	0.001	3.180	0.255	0.257	0.001
2.900	0.099	0.248	-0.003	3.020	0.452	0.265	0.001	3.180	0.333	0.261	-0.004
2.900	0.138	0.262	-0.001	3.020	0.491	0.259	-0.003	3.180	0.373	0.264	0.001
2.900	0.178	0.265	-0.001	3.020	0.531	0.242	-0.002	3.180	0.412	0.264	-0.001
2.900	0.217	0.265	-0.001	3.020	0.570	0.225	-0.002	3.180	0.451	0.259	-0.001
2.900	0.256	0.263	0.001	3.060	0.019	0.207	-0.001	3.180	0.491	0.249	-0.002
2.900	0.296	0.266	0.000	3.060	0.059	0.217	-0.001	3.180	0.530	0.235	-0.002





3.180	0.569	0.215	-0.003	3.330	0.459	0.275	0.001	3.570	0.536	0.264	0.003
3.210	0.027	0.184	-0.002	3.330	0.498	0.278	0.000	3.570	0.575	0.232	-0.001
3.210	0.066	0.233	-0.003	3.330	0.538	0.257	-0.003	3.610	0.339	0.274	0.001
3.210	0.105	0.247	-0.003	3.330	0.577	0.237	-0.002	3.610	0.378	0.272	-0.001
3.210	0.145	0.254	-0.002	3.370	0.183	0.265	0.008	3.610	0.417	0.272	0.000
3.210	0.184	0.255	-0.003	3.370	0.222	0.272	0.003	3.610	0.457	0.277	-0.002
3.210	0.223	0.257	-0.002	3.370	0.301	0.271	0.001	3.610	0.496	0.274	-0.001
3.210	0.263	0.262	-0.001	3.370	0.340	0.269	0.001	3.610	0.536	0.261	0.001
3.210	0.302	0.266	-0.001	3.370	0.380	0.273	0.001	3.610	0.575	0.199	-0.002
3.210	0.341	0.269	-0.001	3.370	0.419	0.274	-0.001	3.650	0.299	0.134	-0.003
3.210	0.381	0.271	0.001	3.370	0.459	0.270	-0.001	3.650	0.338	0.278	-0.001
3.210	0.420	0.274	0.002	3.370	0.537	0.264	0.001	3.650	0.378	0.279	0.000
3.210	0.460	0.275	0.001	3.370	0.577	0.241	-0.002	3.650	0.417	0.277	0.002
3.210	0.499	0.269	-0.001	3.410	0.222	0.266	0.011	3.650	0.457	0.279	-0.001
3.210	0.538	0.265	0.001	3.410	0.261	0.268	0.002	3.650	0.496	0.277	-0.001
3.250	0.026	0.181	-0.002	3.410	0.301	0.273	0.001	3.650	0.535	0.263	-0.002
3.250	0.066	0.235	-0.003	3.410	0.340	0.274	-0.001	3.650	0.575	0.230	-0.003
3.250	0.105	0.250	-0.002	3.410	0.379	0.278	-0.001	3.690	0.299	0.272	-0.010
3.250	0.144	0.256	-0.002	3.410	0.419	0.280	-0.001	3.690	0.338	0.274	-0.001
3.250	0.184	0.260	-0.003	3.410	0.458	0.276	-0.001	3.690	0.378	0.273	-0.001
3.250	0.223	0.260	0.000	3.410	0.498	0.270	-0.001	3.690	0.417	0.277	0.001
3.250	0.262	0.263	0.001	3.410	0.537	0.258	-0.003	3.690	0.456	0.278	0.000
3.250	0.302	0.266	0.000	3.410	0.576	0.239	-0.001	3.690	0.535	0.251	-0.003
3.250	0.341	0.266	-0.001	3.450	0.261	0.271	0.003	3.690	0.574	0.233	-0.001
3.250	0.381	0.270	0.000	3.450	0.300	0.275	0.001	3.730	0.299	0.259	-0.003
3.250	0.420	0.269	0.000	3.450	0.340	0.277	-0.001	3.730	0.338	0.267	0.000
3.250	0.459	0.266	0.002	3.450	0.379	0.277	-0.001	3.730	0.377	0.271	0.000
3.250	0.499	0.268	0.002	3.450	0.419	0.277	0.000	3.730	0.417	0.273	0.000
3.250	0.538	0.257	-0.001	3.450	0.458	0.279	0.000	3.730	0.495	0.266	-0.002
3.250	0.577	0.234	0.000	3.450	0.497	0.264	0.000	3.730	0.535	0.252	-0.002
3.290	0.026	0.169	-0.002	3.450	0.537	0.252	-0.001	3.730	0.574	0.233	-0.002
3.290	0.065	0.250	-0.003	3.450	0.576	0.212	-0.002	3.770	0.298	0.269	-0.003
3.290	0.105	0.258	-0.003	3.490	0.300	0.271	0.006	3.770	0.338	0.272	0.000
3.290	0.144	0.261	-0.002	3.490	0.340	0.280	-0.001	3.770	0.416	0.271	-0.001
3.290	0.183	0.261	-0.003	3.490	0.379	0.286	0.000	3.770	0.456	0.265	-0.001
3.290	0.223	0.257	-0.002	3.490	0.418	0.281	-0.002	3.770	0.495	0.270	0.000
3.290	0.262	0.264	-0.001	3.490	0.497	0.277	0.000	3.770	0.534	0.264	0.000
3.290	0.302	0.264	0.001	3.490	0.536	0.255	0.000	3.770	0.574	0.227	-0.002
3.290	0.341	0.267	0.001	3.490	0.576	0.215	-0.003	3.810	0.259	0.258	-0.006
3.290	0.380	0.275	-0.001	3.530	0.300	0.278	-0.009	3.810	0.298	0.267	-0.002
3.290	0.420	0.276	0.001	3.530	0.339	0.279	-0.001	3.810	0.337	0.272	0.000
3.290	0.459	0.274	0.003	3.530	0.379	0.279	0.000	3.810	0.377	0.269	-0.001
3.290	0.498	0.271	0.002	3.530	0.418	0.280	-0.002	3.810	0.416	0.274	-0.001
3.290	0.538	0.259	0.000	3.530	0.457	0.277	-0.001	3.810	0.455	0.279	-0.001
3.290	0.577	0.245	-0.001	3.530	0.497	0.270	0.000	3.810	0.495	0.276	-0.001
3.330	0.104	0.249	-0.003	3.530	0.536	0.264	0.004	3.810	0.574	0.242	-0.001
3.330	0.144	0.260	-0.003	3.530	0.576	0.227	-0.002	3.850	0.219	0.279	0.008
3.330	0.183	0.262	-0.003	3.570	0.300	0.263	0.027	3.850	0.258	0.266	-0.003
3.330	0.223	0.256	-0.001	3.570	0.339	0.274	0.000	3.850	0.298	0.268	-0.003
3.330	0.262	0.269	-0.001	3.570	0.378	0.281	-0.001	3.850	0.376	0.279	-0.001
3.330	0.301	0.272	0.000	3.570	0.418	0.278	0.000	3.850	0.416	0.279	-0.001
3.330	0.341	0.271	-0.001	3.570	0.457	0.273	-0.001	3.850	0.455	0.272	-0.002
3.330	0.419	0.276	0.000	3.570	0.496	0.274	0.000	3.850	0.495	0.261	-0.003





3.850	0.534	0.250	-0.001	4.000	0.493	0.249	-0.002	4.160	0.217	0.236	-0.003
3.850	0.573	0.228	-0.001	4.000	0.533	0.238	-0.003	4.160	0.256	0.238	-0.003
3.890	0.179	0.264	-0.004	4.000	0.572	0.217	-0.002	4.160	0.295	0.241	-0.004
3.890	0.219	0.258	-0.002	4.040	0.021	0.147	-0.003	4.160	0.335	0.247	-0.003
3.890	0.258	0.264	-0.001	4.040	0.060	0.207	-0.002	4.160	0.374	0.251	-0.003
3.890	0.297	0.263	-0.002	4.040	0.099	0.232	-0.003	4.160	0.414	0.248	-0.002
3.890	0.337	0.268	-0.001	4.040	0.139	0.234	-0.002	4.160	0.453	0.246	-0.002
3.890	0.376	0.273	-0.001	4.040	0.178	0.238	-0.003	4.160	0.492	0.245	-0.001
3.890	0.416	0.273	0.000	4.040	0.218	0.242	-0.003	4.160	0.532	0.229	-0.002
3.890	0.455	0.266	0.001	4.040	0.257	0.243	-0.003	4.160	0.571	0.218	-0.002
3.890	0.494	0.258	-0.003	4.040	0.296	0.246	-0.003	4.200	0.020	0.181	-0.001
3.890	0.534	0.249	-0.002	4.040	0.336	0.251	-0.003	4.200	0.059	0.221	-0.003
3.890	0.573	0.226	-0.002	4.040	0.375	0.262	-0.003	4.200	0.098	0.231	-0.002
3.920	0.100	0.244	-0.002	4.040	0.414	0.265	-0.003	4.200	0.138	0.237	-0.003
3.920	0.140	0.236	-0.002	4.040	0.454	0.259	-0.002	4.200	0.177	0.239	-0.003
3.920	0.179	0.251	-0.003	4.040	0.493	0.251	-0.004	4.200	0.216	0.241	-0.003
3.920	0.218	0.255	-0.002	4.040	0.533	0.243	-0.003	4.200	0.256	0.245	-0.003
3.920	0.258	0.250	-0.003	4.040	0.572	0.220	-0.001	4.200	0.295	0.245	-0.004
3.920	0.297	0.257	-0.005	4.080	0.020	0.176	-0.003	4.200	0.335	0.245	-0.002
3.920	0.337	0.263	-0.002	4.080	0.060	0.220	-0.002	4.200	0.374	0.246	-0.002
3.920	0.376	0.270	-0.002	4.080	0.099	0.227	-0.002	4.200	0.413	0.243	-0.004
3.930	0.415	0.274	-0.002	4.080	0.139	0.230	-0.002	4.200	0.453	0.241	-0.003
3.930	0.455	0.267	0.000	4.080	0.178	0.236	-0.002	4.200	0.492	0.249	-0.002
3.930	0.494	0.256	-0.001	4.080	0.217	0.240	-0.003	4.200	0.531	0.240	-0.002
3.930	0.533	0.251	-0.001	4.080	0.257	0.241	-0.003	4.200	0.571	0.217	-0.002
3.930	0.573	0.221	-0.002	4.080	0.296	0.241	-0.003	4.240	0.019	0.193	-0.001
3.960	0.021	0.145	-0.002	4.080	0.335	0.245	-0.003	4.240	0.059	0.220	-0.003
3.960	0.061	0.221	-0.003	4.080	0.375	0.251	-0.003	4.240	0.098	0.236	-0.003
3.960	0.100	0.237	-0.002	4.080	0.414	0.252	-0.002	4.240	0.137	0.242	-0.002
3.960	0.139	0.242	-0.003	4.080	0.454	0.252	-0.003	4.240	0.177	0.241	-0.003
3.960	0.179	0.248	-0.003	4.080	0.493	0.252	-0.002	4.240	0.216	0.241	-0.004
3.960	0.218	0.252	-0.003	4.080	0.532	0.233	-0.002	4.240	0.256	0.247	-0.004
3.960	0.257	0.251	-0.003	4.080	0.572	0.217	-0.001	4.240	0.295	0.245	-0.003
3.960	0.297	0.252	-0.003	4.120	0.020	0.137	-0.002	4.240	0.334	0.245	-0.003
3.960	0.336	0.257	-0.003	4.120	0.060	0.209	-0.003	4.240	0.374	0.250	-0.002
3.960	0.376	0.266	-0.002	4.120	0.099	0.224	-0.002	4.240	0.413	0.250	-0.002
3.960	0.415	0.269	-0.002	4.120	0.138	0.230	-0.002	4.240	0.452	0.253	0.000
3.960	0.454	0.262	-0.002	4.120	0.178	0.235	-0.002	4.240	0.492	0.247	-0.002
3.960	0.494	0.254	-0.002	4.120	0.217	0.241	-0.003	4.240	0.531	0.238	-0.001
3.960	0.533	0.246	-0.002	4.120	0.256	0.240	-0.003	4.240	0.571	0.198	-0.002
3.960	0.572	0.222	-0.002	4.120	0.296	0.242	-0.002	4.280	0.019	0.210	-0.002
4.000	0.021	0.181	-0.002	4.120	0.335	0.245	-0.002	4.280	0.058	0.219	-0.002
4.000	0.060	0.220	-0.002	4.120	0.374	0.248	-0.002	4.280	0.098	0.235	-0.004
4.000	0.100	0.236	-0.003	4.120	0.414	0.248	-0.002	4.280	0.137	0.239	-0.003
4.000	0.139	0.239	-0.003	4.120	0.453	0.249	-0.001	4.280	0.177	0.241	-0.001
4.000	0.178	0.243	-0.003	4.120	0.493	0.249	-0.001	4.280	0.216	0.245	-0.002
4.000	0.218	0.246	-0.004	4.120	0.532	0.236	-0.001	4.280	0.255	0.251	-0.003
4.000	0.257	0.245	-0.003	4.120	0.571	0.224	-0.002	4.280	0.295	0.255	-0.004
4.000	0.297	0.246	-0.003	4.160	0.020	0.186	-0.002	4.280	0.334	0.262	-0.004
4.000	0.336	0.251	-0.003	4.160	0.059	0.216	-0.002	4.280	0.373	0.265	-0.001
4.000	0.375	0.257	-0.003	4.160	0.099	0.228	-0.003	4.280	0.413	0.263	-0.001
4.000	0.415	0.266	-0.003	4.160	0.138	0.235	-0.002	4.280	0.452	0.263	0.000
4.000	0.454	0.260	-0.002	4.160	0.177	0.237	-0.003	4.280	0.492	0.258	0.000





4.280	0.531	0.242	-0.002	4.440	0.372	0.252	-0.005	4.590	0.105	0.242	-0.006
4.280	0.570	0.202	-0.001	4.440	0.412	0.249	-0.003	4.590	0.144	0.246	-0.005
4.320	0.019	0.198	0.001	4.440	0.451	0.250	-0.002	4.590	0.184	0.238	-0.005
4.320	0.058	0.219	-0.001	4.440	0.490	0.256	-0.001	4.590	0.223	0.239	-0.004
4.320	0.098	0.230	-0.002	4.440	0.530	0.256	0.001	4.590	0.262	0.232	-0.005
4.320	0.137	0.237	-0.002	4.440	0.569	0.189	0.001	4.590	0.302	0.247	-0.004
4.320	0.176	0.236	-0.001	4.470	0.027	0.174	-0.002	4.590	0.341	0.255	-0.003
4.320	0.216	0.244	-0.001	4.470	0.066	0.216	-0.002	4.590	0.380	0.257	-0.002
4.320	0.255	0.249	-0.004	4.470	0.106	0.227	-0.003	4.590	0.420	0.253	-0.004
4.320	0.294	0.257	-0.003	4.470	0.145	0.226	-0.006	4.590	0.459	0.251	-0.002
4.320	0.334	0.262	-0.002	4.470	0.184	0.234	-0.004	4.590	0.498	0.253	-0.002
4.320	0.373	0.267	-0.002	4.470	0.224	0.239	-0.004	4.590	0.538	0.249	-0.002
4.320	0.412	0.266	-0.001	4.470	0.263	0.248	-0.006	4.590	0.577	0.178	-0.001
4.320	0.452	0.263	-0.001	4.470	0.302	0.250	-0.004	4.630	0.026	0.192	0.002
4.320	0.491	0.263	-0.003	4.470	0.342	0.251	-0.003	4.630	0.065	0.218	-0.002
4.320	0.531	0.250	-0.002	4.470	0.381	0.254	-0.001	4.630	0.105	0.243	-0.003
4.320	0.570	0.183	-0.001	4.470	0.420	0.255	0.000	4.630	0.144	0.245	-0.003
4.360	0.018	0.202	-0.001	4.470	0.460	0.253	-0.001	4.630	0.183	0.245	-0.003
4.360	0.058	0.214	-0.001	4.470	0.499	0.242	-0.002	4.630	0.223	0.246	-0.003
4.360	0.097	0.234	-0.002	4.470	0.538	0.227	-0.001	4.630	0.262	0.249	-0.003
4.360	0.137	0.235	-0.003	4.470	0.577	0.172	-0.001	4.630	0.301	0.257	-0.003
4.360	0.176	0.235	-0.001	4.510	0.027	0.165	-0.002	4.630	0.341	0.260	-0.001
4.360	0.215	0.244	-0.001	4.510	0.066	0.222	-0.001	4.630	0.380	0.263	-0.002
4.360	0.255	0.252	-0.003	4.510	0.105	0.233	-0.003	4.630	0.419	0.268	-0.002
4.360	0.294	0.257	-0.002	4.510	0.145	0.234	-0.003	4.630	0.459	0.262	-0.001
4.360	0.333	0.260	-0.001	4.510	0.184	0.236	-0.004	4.630	0.498	0.257	-0.002
4.360	0.373	0.259	-0.001	4.510	0.223	0.239	-0.003	4.630	0.537	0.249	-0.001
4.360	0.412	0.260	-0.002	4.510	0.263	0.247	-0.001	4.630	0.577	0.194	-0.001
4.360	0.452	0.252	-0.002	4.510	0.302	0.252	-0.003	4.670	0.026	0.168	0.002
4.360	0.491	0.257	-0.001	4.510	0.341	0.255	-0.003	4.670	0.065	0.221	0.000
4.360	0.530	0.247	0.000	4.510	0.381	0.258	-0.001	4.670	0.105	0.245	-0.001
4.360	0.570	0.160	-0.001	4.510	0.420	0.258	-0.001	4.670	0.144	0.249	-0.003
4.400	0.018	0.194	0.002	4.510	0.459	0.254	0.001	4.670	0.183	0.245	-0.003
4.400	0.058	0.214	-0.001	4.510	0.499	0.245	-0.002	4.670	0.223	0.245	-0.001
4.400	0.097	0.231	-0.003	4.510	0.538	0.228	0.001	4.670	0.262	0.252	-0.001
4.400	0.136	0.232	-0.002	4.510	0.577	0.172	0.000	4.670	0.301	0.256	-0.001
4.400	0.176	0.234	-0.001	4.550	0.027	0.178	-0.001	4.670	0.341	0.259	-0.001
4.400	0.215	0.244	-0.002	4.550	0.066	0.222	-0.001	4.670	0.380	0.263	0.000
4.400	0.254	0.246	-0.002	4.550	0.105	0.239	-0.004	4.670	0.419	0.262	-0.002
4.400	0.294	0.246	-0.002	4.550	0.145	0.239	-0.003	4.670	0.459	0.261	-0.002
4.400	0.333	0.258	-0.001	4.550	0.184	0.227	-0.003	4.670	0.498	0.262	-0.001
4.400	0.373	0.266	-0.001	4.550	0.223	0.243	-0.004	4.670	0.537	0.253	-0.001
4.400	0.412	0.253	-0.003	4.550	0.262	0.247	-0.003	4.670	0.577	0.177	0.000
4.400	0.451	0.248	-0.003	4.550	0.302	0.249	-0.005	4.710	0.026	0.174	0.001
4.400	0.491	0.249	-0.002	4.550	0.341	0.253	-0.004	4.710	0.065	0.219	0.000
4.400	0.530	0.244	0.000	4.550	0.380	0.257	-0.001	4.710	0.104	0.246	-0.001
4.400	0.569	0.169	-0.001	4.550	0.420	0.256	-0.003	4.710	0.144	0.241	-0.004
4.440	0.000	0.236	-0.004	4.550	0.459	0.252	0.000	4.710	0.183	0.241	-0.003
4.440	0.097	0.237	-0.002	4.550	0.498	0.248	-0.001	4.710	0.222	0.245	-0.003
4.440	0.136	0.241	-0.003	4.550	0.538	0.217	0.039	4.710	0.262	0.253	-0.002
4.440	0.254	0.232	-0.005	4.550	0.577	0.153	-0.001	4.710	0.301	0.261	0.001
4.440	0.294	0.247	-0.005	4.590	0.026	0.186	-0.001	4.710	0.340	0.261	-0.003
4.440	0.333	0.256	-0.004	4.590	0.066	0.212	-0.002	4.710	0.380	0.264	-0.001





4.710	0.458	0.255	0.000	4.870	0.104	0.246	-0.002	5.020	0.142	0.254	-0.004
4.710	0.498	0.264	0.001	4.870	0.143	0.248	-0.002	5.020	0.181	0.257	-0.005
4.710	0.537	0.257	-0.002	4.870	0.182	0.248	-0.003	5.020	0.221	0.265	0.001
4.710	0.576	0.162	-0.001	4.870	0.222	0.260	-0.001	5.020	0.260	0.270	-0.001
4.750	0.026	0.174	0.000	4.870	0.261	0.260	0.001	5.020	0.299	0.267	0.000
4.750	0.065	0.223	-0.001	4.870	0.300	0.265	0.001	5.020	0.339	0.265	-0.001
4.750	0.104	0.251	-0.003	4.870	0.340	0.271	0.002	5.020	0.378	0.273	0.000
4.750	0.144	0.251	-0.003	4.870	0.379	0.275	0.000	5.020	0.417	0.269	0.000
4.750	0.183	0.245	-0.004	4.900	0.261	0.260	-0.003	5.020	0.496	0.255	0.000
4.750	0.222	0.246	-0.003	4.900	0.300	0.260	-0.002	5.020	0.535	0.245	-0.002
4.750	0.262	0.251	-0.003	4.900	0.339	0.264	-0.002	5.020	0.575	0.222	-0.002
4.750	0.301	0.258	-0.001	4.900	0.379	0.271	0.001	5.060	0.024	0.226	-0.002
4.750	0.340	0.268	0.000	4.900	0.418	0.273	0.001	5.060	0.063	0.240	-0.002
4.750	0.379	0.273	0.001	4.900	0.457	0.271	0.001	5.060	0.103	0.256	-0.002
4.750	0.419	0.270	0.001	4.900	0.497	0.265	0.003	5.060	0.142	0.263	0.000
4.750	0.458	0.266	0.002	4.900	0.536	0.254	-0.001	5.060	0.181	0.260	-0.002
4.750	0.497	0.256	0.001	4.900	0.575	0.215	0.000	5.060	0.221	0.268	-0.001
4.750	0.537	0.239	-0.001	4.910	0.025	0.209	0.000	5.060	0.260	0.266	-0.003
4.750	0.576	0.178	-0.001	4.910	0.103	0.244	-0.002	5.060	0.299	0.262	0.001
4.790	0.025	0.203	0.000	4.910	0.143	0.252	-0.003	5.060	0.339	0.265	0.000
4.790	0.065	0.222	-0.002	4.910	0.182	0.255	-0.003	5.060	0.378	0.273	-0.001
4.790	0.104	0.243	-0.002	4.910	0.221	0.258	-0.002	5.060	0.417	0.273	0.000
4.790	0.143	0.248	-0.002	4.940	0.064	0.239	-0.002	5.060	0.457	0.271	0.001
4.790	0.183	0.252	-0.002	4.940	0.103	0.251	-0.002	5.060	0.496	0.261	0.000
4.790	0.222	0.257	-0.001	4.940	0.143	0.252	-0.004	5.060	0.535	0.250	-0.002
4.790	0.261	0.256	-0.002	4.940	0.182	0.255	-0.004	5.060	0.575	0.225	0.000
4.790	0.301	0.260	-0.001	4.940	0.221	0.260	0.000	5.100	0.024	0.233	-0.001
4.790	0.340	0.261	0.000	4.940	0.261	0.263	0.000	5.100	0.063	0.241	-0.001
4.790	0.379	0.268	0.000	4.940	0.300	0.262	-0.001	5.100	0.102	0.258	-0.001
4.790	0.419	0.272	0.000	4.940	0.339	0.266	0.001	5.100	0.142	0.263	-0.003
4.790	0.458	0.264	-0.001	4.940	0.379	0.275	0.002	5.100	0.181	0.260	0.000
4.790	0.497	0.250	0.000	4.940	0.418	0.277	0.000	5.100	0.220	0.263	0.000
4.790	0.576	0.204	-0.001	4.940	0.457	0.276	-0.001	5.100	0.299	0.264	0.000
4.820	0.576	0.214	-0.001	4.940	0.496	0.250	-0.001	5.100	0.338	0.270	0.002
4.830	0.025	0.205	0.001	4.940	0.575	0.216	0.000	5.100	0.378	0.274	-0.001
4.830	0.064	0.226	-0.001	4.950	0.025	0.213	-0.001	5.100	0.417	0.271	-0.002
4.830	0.104	0.252	-0.002	4.980	0.024	0.214	-0.001	5.100	0.456	0.265	0.000
4.830	0.143	0.251	-0.002	4.980	0.064	0.240	-0.002	5.100	0.496	0.258	-0.001
4.830	0.182	0.249	-0.001	4.980	0.103	0.254	-0.001	5.100	0.535	0.251	-0.002
4.830	0.222	0.258	-0.004	4.980	0.142	0.255	-0.001	5.100	0.574	0.226	-0.001
4.830	0.261	0.259	0.000	4.980	0.182	0.252	-0.002	5.140	0.024	0.232	-0.001
4.830	0.340	0.266	-0.001	4.980	0.221	0.264	-0.001	5.140	0.063	0.240	-0.001
4.830	0.379	0.275	0.000	4.980	0.300	0.262	0.000	5.140	0.102	0.261	-0.002
4.830	0.418	0.276	0.000	4.980	0.339	0.266	0.001	5.140	0.142	0.259	-0.001
4.830	0.458	0.267	-0.001	4.980	0.378	0.279	0.001	5.140	0.181	0.255	-0.002
4.830	0.497	0.252	-0.001	4.980	0.418	0.276	0.001	5.140	0.220	0.264	0.000
4.860	0.418	0.277	0.000	4.980	0.457	0.264	-0.001	5.140	0.260	0.272	0.002
4.860	0.458	0.270	0.001	4.980	0.496	0.256	-0.001	5.140	0.299	0.274	0.001
4.860	0.497	0.260	0.000	4.980	0.536	0.237	-0.003	5.140	0.338	0.280	0.001
4.860	0.536	0.246	0.000	4.980	0.575	0.221	-0.002	5.140	0.378	0.278	0.001
4.860	0.576	0.205	-0.001	5.020	0.024	0.227	-0.001	5.140	0.417	0.274	0.000
4.870	0.025	0.198	0.000	5.020	0.064	0.241	-0.003	5.140	0.456	0.277	-0.001
4.870	0.064	0.230	-0.001	5.020	0.103	0.248	0.000	5.140	0.496	0.267	0.000





5.140	0.535	0.260	0.000	5.300	0.259	0.271	0.000	5.420	0.573	0.225	0.000
5.140	0.574	0.229	-0.001	5.300	0.298	0.276	0.000	5.460	0.022	0.216	0.000
5.180	0.023	0.239	-0.001	5.300	0.337	0.280	-0.001	5.460	0.061	0.245	0.000
5.180	0.063	0.250	-0.003	5.300	0.377	0.277	0.000	5.460	0.101	0.254	-0.001
5.180	0.102	0.268	0.000	5.300	0.416	0.278	0.000	5.460	0.140	0.259	0.000
5.180	0.141	0.267	0.002	5.300	0.455	0.291	-0.001	5.460	0.179	0.261	-0.001
5.180	0.181	0.267	0.002	5.300	0.495	0.273	0.000	5.460	0.219	0.261	-0.002
5.180	0.220	0.268	0.001	5.300	0.534	0.262	0.000	5.460	0.258	0.265	-0.001
5.180	0.259	0.272	0.000	5.300	0.573	0.247	-0.001	5.460	0.297	0.265	-0.001
5.180	0.299	0.277	0.000	5.340	0.023	0.215	0.000	5.460	0.337	0.267	-0.001
5.180	0.338	0.278	0.000	5.340	0.062	0.245	-0.002	5.460	0.376	0.270	0.000
5.180	0.377	0.275	0.000	5.340	0.101	0.259	-0.003	5.460	0.415	0.272	0.000
5.180	0.417	0.273	0.002	5.340	0.141	0.259	-0.002	5.460	0.455	0.271	-0.001
5.180	0.456	0.276	0.000	5.340	0.180	0.265	0.000	5.460	0.494	0.263	-0.001
5.180	0.495	0.269	0.001	5.340	0.219	0.269	-0.001	5.460	0.533	0.250	0.000
5.180	0.535	0.258	0.000	5.340	0.259	0.273	0.001	5.460	0.573	0.224	-0.001
5.180	0.574	0.223	-0.001	5.340	0.298	0.269	0.000	5.500	0.061	0.251	-0.001
5.220	0.023	0.230	-0.004	5.340	0.337	0.270	-0.001	5.500	0.101	0.256	0.000
5.220	0.063	0.247	-0.003	5.340	0.377	0.268	0.000	5.500	0.140	0.258	-0.001
5.220	0.102	0.260	-0.001	5.340	0.416	0.274	0.000	5.500	0.179	0.266	-0.001
5.220	0.141	0.258	-0.001	5.340	0.455	0.278	0.000	5.500	0.218	0.264	0.000
5.220	0.181	0.258	0.001	5.340	0.495	0.271	0.000	5.500	0.258	0.264	0.001
5.220	0.220	0.263	0.000	5.340	0.534	0.255	-0.001	5.500	0.297	0.265	0.000
5.220	0.259	0.272	0.000	5.340	0.573	0.239	-0.001	5.500	0.336	0.267	-0.002
5.220	0.298	0.276	0.000	5.380	0.022	0.222	0.000	5.500	0.376	0.265	-0.001
5.220	0.338	0.278	0.001	5.380	0.062	0.243	-0.001	5.500	0.415	0.267	-0.001
5.220	0.377	0.276	0.001	5.380	0.101	0.256	-0.002	5.500	0.454	0.265	-0.001
5.220	0.416	0.276	0.001	5.380	0.140	0.260	0.000	5.500	0.494	0.256	-0.001
5.220	0.456	0.275	0.001	5.380	0.180	0.267	0.000	5.500	0.533	0.255	-0.002
5.220	0.495	0.275	0.000	5.380	0.219	0.267	0.001	5.500	0.572	0.232	-0.001
5.220	0.534	0.259	0.000	5.380	0.258	0.274	0.000	5.540	0.022	0.214	0.000
5.220	0.574	0.212	-0.001	5.380	0.298	0.274	-0.001	5.540	0.061	0.260	-0.002
5.260	0.023	0.190	-0.002	5.380	0.337	0.271	0.000	5.540	0.100	0.263	-0.001
5.260	0.062	0.239	-0.003	5.380	0.376	0.267	0.001	5.540	0.140	0.259	-0.002
5.260	0.102	0.257	-0.002	5.380	0.416	0.272	0.000	5.540	0.179	0.257	-0.001
5.260	0.141	0.262	-0.002	5.380	0.455	0.282	0.000	5.540	0.218	0.262	0.001
5.260	0.180	0.269	0.000	5.380	0.494	0.270	-0.001	5.540	0.258	0.257	0.000
5.260	0.220	0.269	-0.001	5.380	0.534	0.264	-0.001	5.540	0.297	0.262	-0.002
5.260	0.259	0.270	-0.002	5.380	0.573	0.236	-0.001	5.540	0.336	0.273	0.000
5.260	0.298	0.269	-0.002	5.420	0.022	0.225	0.000	5.540	0.376	0.271	0.000
5.260	0.338	0.272	0.001	5.420	0.062	0.251	0.000	5.540	0.415	0.273	-0.001
5.260	0.377	0.281	0.001	5.420	0.101	0.257	-0.002	5.540	0.454	0.271	-0.001
5.260	0.416	0.279	0.001	5.420	0.140	0.259	-0.003	5.540	0.533	0.253	-0.001
5.260	0.456	0.274	0.001	5.420	0.180	0.266	-0.001	5.540	0.572	0.240	-0.001
5.260	0.495	0.269	0.000	5.420	0.219	0.264	-0.001	5.580	0.021	0.209	0.000
5.260	0.534	0.260	-0.001	5.420	0.258	0.265	0.000	5.580	0.061	0.244	0.000
5.260	0.574	0.239	-0.002	5.420	0.298	0.270	0.000	5.580	0.100	0.257	-0.001
5.300	0.023	0.188	-0.001	5.420	0.337	0.269	-0.002	5.580	0.139	0.263	0.000
5.300	0.062	0.245	-0.002	5.420	0.376	0.266	-0.003	5.580	0.179	0.259	0.000
5.300	0.101	0.254	-0.002	5.420	0.416	0.270	0.000	5.580	0.218	0.260	-0.001
5.300	0.141	0.255	-0.002	5.420	0.455	0.274	0.000	5.580	0.257	0.259	0.000
5.300	0.180	0.260	-0.001	5.420	0.494	0.259	-0.001	5.580	0.297	0.258	-0.001
5.300	0.219	0.264	-0.001	5.420	0.533	0.260	0.000	5.580	0.336	0.264	-0.001





5.580	0.375	0.266	-0.001	5.720	0.103	0.262	-0.001	5.920	0.143	0.282	-0.001
5.580	0.415	0.270	0.000	5.720	0.143	0.261	-0.002	5.920	0.182	0.281	-0.001
5.580	0.454	0.268	0.000	5.720	0.182	0.267	-0.001	5.920	0.221	0.291	-0.002
5.580	0.493	0.257	0.000	5.720	0.221	0.274	-0.001	5.920	0.261	0.295	-0.002
5.580	0.533	0.248	-0.002	5.720	0.261	0.279	-0.001	5.920	0.300	0.287	-0.003
5.580	0.572	0.235	-0.001	5.720	0.300	0.281	-0.001	5.960	0.025	0.229	-0.001
5.620	0.021	0.199	-0.001	5.720	0.339	0.283	-0.001	5.960	0.064	0.283	-0.001
5.620	0.061	0.251	-0.002	5.720	0.379	0.274	-0.002	5.960	0.103	0.282	-0.001
5.620	0.100	0.256	-0.001	5.720	0.418	0.272	-0.001	5.960	0.143	0.278	0.000
5.620	0.139	0.262	0.000	5.720	0.457	0.207	0.001	5.960	0.182	0.281	-0.001
5.620	0.179	0.259	0.000	5.720	0.497	0.181	0.002	5.960	0.221	0.290	-0.002
5.620	0.218	0.259	0.000	5.720	0.536	0.130	0.002	5.960	0.261	0.300	-0.002
5.620	0.257	0.262	0.001	5.760	0.025	0.222	-0.002	5.960	0.300	0.297	-0.002
5.620	0.297	0.265	-0.001	5.760	0.064	0.249	-0.005	6.000	0.025	0.259	-0.002
5.620	0.336	0.268	-0.001	5.760	0.103	0.267	-0.002	6.000	0.064	0.277	-0.002
5.620	0.375	0.268	-0.001	5.760	0.143	0.272	-0.003	6.000	0.103	0.284	-0.001
5.620	0.415	0.272	0.000	5.760	0.182	0.271	-0.001	6.000	0.143	0.285	-0.001
5.620	0.454	0.273	0.000	5.760	0.221	0.274	0.000	6.000	0.182	0.285	-0.002
5.620	0.493	0.265	0.000	5.760	0.261	0.280	-0.003	6.000	0.221	0.292	-0.002
5.620	0.533	0.244	-0.001	5.760	0.300	0.284	-0.002	6.000	0.261	0.301	-0.001
5.620	0.572	0.239	0.000	5.760	0.339	0.283	-0.001	6.000	0.300	0.301	-0.003
5.660	0.021	0.236	-0.001	5.760	0.379	0.283	-0.002	6.040	0.025	0.255	0.000
5.660	0.060	0.253	-0.003	5.760	0.418	0.274	0.000	6.040	0.064	0.279	0.000
5.660	0.100	0.257	0.000	5.800	0.025	0.236	0.000	6.040	0.103	0.285	0.000
5.660	0.139	0.261	0.000	5.800	0.064	0.245	-0.004	6.040	0.143	0.293	-0.002
5.660	0.178	0.263	0.000	5.800	0.103	0.264	-0.002	6.040	0.182	0.295	-0.002
5.660	0.218	0.265	0.000	5.800	0.143	0.273	-0.003	6.040	0.221	0.296	-0.001
5.660	0.257	0.268	0.000	5.800	0.182	0.277	-0.002	6.040	0.261	0.303	0.000
5.660	0.296	0.267	0.001	5.800	0.221	0.281	-0.002	6.040	0.300	0.301	-0.009
5.660	0.336	0.269	-0.001	5.800	0.261	0.281	-0.001	6.080	0.064	0.266	0.000
5.660	0.375	0.267	-0.002	5.800	0.300	0.280	-0.002	6.080	0.103	0.284	0.000
5.660	0.414	0.268	0.000	5.800	0.339	0.283	-0.003	6.080	0.143	0.294	-0.002
5.660	0.454	0.272	-0.001	5.800	0.379	0.242	-0.006	6.080	0.182	0.292	-0.002
5.660	0.493	0.266	-0.001	5.840	0.025	0.250	0.001	6.080	0.221	0.292	0.001
5.660	0.532	0.251	-0.001	5.840	0.064	0.264	0.000	6.080	0.261	0.300	-0.001
5.660	0.572	0.233	0.000	5.840	0.103	0.282	-0.002	6.080	0.300	0.302	0.001
5.700	0.021	0.226	0.000	5.840	0.143	0.277	-0.002	6.120	0.025	0.240	0.000
5.700	0.060	0.241	-0.001	5.840	0.182	0.276	-0.003	6.120	0.064	0.273	0.000
5.700	0.100	0.251	-0.001	5.840	0.221	0.281	-0.001	6.120	0.103	0.287	0.000
5.700	0.139	0.262	-0.001	5.840	0.261	0.288	-0.002	6.120	0.143	0.298	-0.001
5.700	0.178	0.263	-0.001	5.840	0.300	0.287	-0.002	6.120	0.182	0.295	-0.002
5.700	0.218	0.262	-0.001	5.840	0.339	0.278	-0.006	6.120	0.221	0.290	0.001
5.700	0.257	0.271	-0.001	5.880	0.025	0.249	0.002	6.120	0.261	0.303	0.000
5.700	0.296	0.269	0.001	5.880	0.064	0.268	0.001	6.120	0.300	0.292	0.000
5.700	0.335	0.270	0.001	5.880	0.103	0.274	0.000	6.160	0.025	0.245	0.000
5.700	0.375	0.273	-0.001	5.880	0.143	0.280	-0.001	6.160	0.064	0.279	-0.001
5.700	0.414	0.272	0.000	5.880	0.182	0.280	-0.003	6.160	0.103	0.289	-0.001
5.700	0.453	0.273	-0.001	5.880	0.221	0.283	-0.003	6.160	0.143	0.292	-0.002
5.700	0.493	0.268	-0.002	5.880	0.261	0.295	-0.002	6.160	0.182	0.285	-0.001
5.700	0.532	0.260	0.000	5.880	0.300	0.286	-0.004	6.160	0.261	0.299	0.000
5.700	0.571	0.204	-0.001	5.920	0.025	0.238	0.000	6.160	0.300	0.296	0.004
5.720	0.025	0.221	0.000	5.920	0.064	0.267	-0.001	6.200	0.025	0.262	0.001
5.720	0.064	0.258	-0.001	5.920	0.103	0.278	0.000	6.200	0.064	0.275	0.001





6.200	0.103	0.285	0.000	6.350	0.536	0.279	0.003	6.510	0.261	0.279	0.001
6.200	0.143	0.285	0.000	6.350	0.575	0.231	0.000	6.510	0.300	0.281	0.000
6.200	0.182	0.290	0.000	6.390	0.025	0.249	0.000	6.510	0.339	0.281	0.002
6.200	0.221	0.295	-0.002	6.390	0.064	0.250	0.000	6.510	0.379	0.278	0.002
6.200	0.261	0.289	0.001	6.390	0.103	0.271	0.001	6.510	0.418	0.276	0.002
6.200	0.300	0.289	0.000	6.390	0.143	0.282	0.001	6.510	0.457	0.267	0.003
6.200	0.339	0.298	0.005	6.390	0.182	0.280	0.000	6.510	0.497	0.264	0.002
6.230	0.300	0.298	0.001	6.390	0.221	0.282	0.000	6.510	0.536	0.260	0.002
6.230	0.339	0.293	0.003	6.390	0.261	0.289	0.001	6.510	0.575	0.249	0.000
6.230	0.379	0.284	0.016	6.390	0.300	0.289	0.001	6.550	0.025	0.226	0.000
6.240	0.025	0.263	0.001	6.390	0.339	0.288	0.002	6.550	0.064	0.258	0.002
6.240	0.064	0.271	0.002	6.390	0.379	0.286	0.001	6.550	0.103	0.279	0.000
6.240	0.103	0.283	0.000	6.390	0.418	0.287	0.001	6.550	0.143	0.281	-0.002
6.240	0.143	0.282	0.000	6.390	0.457	0.285	0.002	6.550	0.182	0.278	0.001
6.240	0.182	0.283	-0.002	6.390	0.497	0.280	0.002	6.550	0.221	0.275	0.002
6.240	0.221	0.290	-0.001	6.390	0.536	0.278	0.002	6.550	0.261	0.272	0.001
6.240	0.261	0.294	0.000	6.390	0.575	0.244	0.000	6.550	0.300	0.272	0.000
6.270	0.143	0.290	-0.001	6.430	0.025	0.250	0.000	6.550	0.339	0.277	0.002
6.270	0.182	0.284	0.000	6.430	0.064	0.258	0.000	6.550	0.379	0.280	0.002
6.270	0.221	0.281	0.001	6.430	0.103	0.275	0.002	6.550	0.418	0.276	0.002
6.270	0.261	0.293	0.001	6.430	0.143	0.285	0.001	6.550	0.457	0.271	0.004
6.270	0.339	0.291	0.001	6.430	0.182	0.285	0.001	6.550	0.497	0.266	0.001
6.270	0.379	0.286	0.003	6.430	0.221	0.283	0.002	6.550	0.536	0.262	0.001
6.270	0.418	0.289	0.004	6.430	0.261	0.287	0.001	6.550	0.575	0.247	0.000
6.280	0.025	0.255	0.000	6.430	0.300	0.289	0.001	6.590	0.025	0.229	0.000
6.280	0.064	0.267	0.001	6.430	0.339	0.289	0.000	6.590	0.064	0.248	0.002
6.280	0.103	0.284	0.000	6.430	0.379	0.287	0.001	6.590	0.103	0.277	0.000
6.310	0.025	0.244	0.000	6.430	0.418	0.286	0.001	6.590	0.143	0.275	0.000
6.310	0.064	0.275	0.001	6.430	0.457	0.280	0.002	6.590	0.182	0.266	0.001
6.310	0.103	0.276	0.000	6.430	0.497	0.278	0.001	6.590	0.221	0.272	0.001
6.310	0.143	0.285	0.000	6.430	0.536	0.273	0.002	6.590	0.261	0.277	0.001
6.310	0.182	0.287	0.000	6.430	0.575	0.245	0.000	6.590	0.300	0.277	-0.001
6.310	0.221	0.286	0.001	6.470	0.025	0.225	0.001	6.590	0.339	0.278	0.002
6.310	0.261	0.295	0.000	6.470	0.064	0.251	0.000	6.590	0.379	0.279	0.002
6.310	0.300	0.296	0.001	6.470	0.103	0.280	0.000	6.590	0.418	0.276	0.001
6.310	0.339	0.290	0.002	6.470	0.143	0.284	-0.001	6.590	0.457	0.273	0.002
6.310	0.379	0.281	0.003	6.470	0.182	0.280	0.000	6.590	0.497	0.266	0.003
6.310	0.418	0.281	0.002	6.470	0.221	0.281	0.002	6.590	0.536	0.269	0.002
6.310	0.457	0.281	0.003	6.470	0.261	0.281	0.001	6.590	0.575	0.248	-0.001
6.310	0.497	0.274	0.003	6.470	0.300	0.286	0.000	6.630	0.064	0.251	0.001
6.350	0.025	0.252	0.000	6.470	0.339	0.288	0.000	6.630	0.103	0.271	0.000
6.350	0.064	0.259	0.002	6.470	0.379	0.285	0.002	6.630	0.143	0.275	-0.001
6.350	0.103	0.277	0.000	6.470	0.418	0.280	0.002	6.630	0.182	0.274	0.000
6.350	0.143	0.284	0.001	6.470	0.457	0.264	0.002	6.630	0.221	0.272	0.001
6.350	0.182	0.284	0.002	6.470	0.497	0.264	0.002	6.630	0.261	0.277	0.002
6.350	0.221	0.278	0.002	6.470	0.536	0.269	0.002	6.630	0.300	0.278	0.001
6.350	0.261	0.282	0.001	6.470	0.575	0.244	-0.001	6.630	0.339	0.280	0.002
6.350	0.300	0.285	0.002	6.510	0.025	0.223	0.000	6.630	0.379	0.280	0.001
6.350	0.339	0.288	0.002	6.510	0.064	0.258	0.001	6.630	0.418	0.278	0.002
6.350	0.379	0.288	0.001	6.510	0.103	0.277	0.001	6.630	0.457	0.275	0.002
6.350	0.418	0.287	0.002	6.510	0.143	0.275	0.002	6.630	0.497	0.272	0.001
6.350	0.457	0.279	0.003	6.510	0.182	0.274	0.001	6.630	0.536	0.271	0.002
6.350	0.497	0.278	0.003	6.510	0.221	0.280	0.002	6.630	0.575	0.244	-0.001





6.670	0.025	0.227	0.000	6.750	0.379	0.274	0.003	6.860	0.575	0.158	-0.001
6.670	0.064	0.242	0.000	6.780	0.261	0.268	0.002	6.900	0.025	0.228	-0.001
6.670	0.103	0.266	0.001	6.780	0.300	0.272	0.004	6.900	0.064	0.239	0.000
6.670	0.143	0.276	0.000	6.780	0.339	0.274	0.001	6.900	0.103	0.240	0.000
6.670	0.182	0.274	0.000	6.780	0.379	0.268	0.004	6.900	0.143	0.251	-0.002
6.670	0.221	0.276	0.001	6.780	0.418	0.257	-0.001	6.900	0.182	0.262	0.002
6.670	0.261	0.280	0.002	6.780	0.457	0.258	-0.001	6.900	0.221	0.270	0.004
6.670	0.300	0.278	0.001	6.780	0.536	0.259	0.001	6.900	0.261	0.272	0.004
6.670	0.339	0.282	0.002	6.780	0.575	0.204	-0.001	6.900	0.300	0.269	0.003
6.670	0.379	0.280	0.002	6.790	0.025	0.225	0.000	6.900	0.339	0.267	0.003
6.670	0.418	0.282	0.001	6.790	0.064	0.239	0.000	6.900	0.379	0.263	0.002
6.670	0.457	0.280	0.002	6.790	0.103	0.259	0.000	6.900	0.418	0.266	0.001
6.670	0.497	0.271	0.001	6.790	0.143	0.262	0.002	6.900	0.457	0.268	0.000
6.670	0.536	0.269	0.001	6.790	0.182	0.264	0.002	6.900	0.497	0.257	-0.001
6.670	0.575	0.247	0.001	6.790	0.221	0.267	0.005	6.900	0.536	0.247	0.001
6.700	0.575	0.238	-0.001	6.820	0.103	0.257	0.001	6.900	0.575	0.200	-0.001
6.710	0.025	0.206	0.001	6.820	0.143	0.259	0.001	6.940	0.025	0.220	0.000
6.710	0.064	0.245	-0.001	6.820	0.182	0.263	0.002	6.940	0.064	0.235	0.001
6.710	0.103	0.261	0.001	6.820	0.221	0.266	0.005	6.940	0.103	0.246	0.000
6.710	0.143	0.265	0.001	6.820	0.261	0.271	0.006	6.940	0.143	0.251	-0.001
6.710	0.182	0.274	0.002	6.820	0.300	0.273	0.004	6.940	0.182	0.260	0.001
6.710	0.221	0.275	0.002	6.820	0.339	0.271	0.002	6.940	0.221	0.267	0.005
6.710	0.261	0.274	0.002	6.820	0.379	0.268	0.002	6.940	0.261	0.269	0.004
6.710	0.300	0.273	0.002	6.820	0.418	0.262	0.002	6.940	0.300	0.264	0.001
6.710	0.339	0.278	0.004	6.820	0.457	0.258	0.000	6.940	0.339	0.261	0.001
6.710	0.379	0.271	0.003	6.820	0.497	0.260	0.000	6.940	0.379	0.261	0.002
6.710	0.418	0.271	0.003	6.820	0.536	0.260	0.000	6.940	0.418	0.256	0.001
6.710	0.457	0.273	0.002	6.820	0.575	0.161	0.000	6.940	0.457	0.253	0.000
6.710	0.497	0.271	0.001	6.830	0.025	0.222	0.000	6.940	0.497	0.250	0.001
6.710	0.536	0.251	0.000	6.830	0.064	0.239	0.000	6.940	0.536	0.243	0.000
6.740	0.418	0.262	0.001	6.860	0.025	0.230	-0.001	6.940	0.575	0.186	0.000
6.740	0.457	0.260	0.000	6.860	0.064	0.245	0.000				
6.740	0.497	0.257	-0.001	6.860	0.103	0.260	0.001				
6.740	0.536	0.253	-0.001	6.860	0.143	0.265	0.001				
6.740	0.575	0.231	-0.001	6.860	0.182	0.265	0.003				
6.750	0.025	0.226	0.001	6.860	0.221	0.267	0.005				
6.750	0.064	0.246	-0.001	6.860	0.261	0.264	0.005				
6.750	0.103	0.261	0.001	6.860	0.300	0.269	0.004				
6.750	0.143	0.262	0.003	6.860	0.339	0.264	0.003				
6.750	0.182	0.268	0.003	6.860	0.379	0.261	0.000				
6.750	0.221	0.265	0.002	6.860	0.418	0.262	0.000				
6.750	0.261	0.266	0.004	6.860	0.457	0.258	0.000				
6.750	0.300	0.275	0.005	6.860	0.497	0.262	0.002				
6.750	0.339	0.274	0.004	6.860	0.536	0.258	0.000				



## APPENDIX D: DEPTH DATA

The dynamic water depths in longitudinal versus transverse direction for each vegetation density and centerline static depths. x is the longitudinal and y is the transverse directions of 2.4-m by 0.54-m. The depth values are in meters.





**Vegetation Density 10%**

x\y	0.060	0.120	0.180	0.240	0.300	0.360	0.420	0.480	0.540
0.000	0.03566	0.03597	0.03566	0.03475	0.03414	0	0	0	0
0.240	0.03475	0.03536	0.03566	0.03475	0.03505	0.03444	0	0	0
0.480	0.03322	0.03383	0.03353	0.03353	0.03444	0.03414	0.03414	0.03444	0.03444
0.720	0.03414	0.03414	0.03414	0.03414	0.03444	0.03536	0.03475	0.03536	0.03536
0.960	0.03505	0.03566	0.03597	0.03627	0.03627	0.03597	0.03566	0.03597	0.03627
1.200	0.03566	0.03627	0.03536	0.03566	0.03536	0.03597	0.03627	0.03566	0.03627
1.440	0.03871	0.03719	0.03688	0.03627	0.03597	0.03658	0.03688	0.03627	0.03688
1.680	0.03871	0.0381	0.03749	0.03749	0.03719	0.03749	0.0378	0.03688	0.03688
1.920	0	0	0	0.03658	0.03627	0.03749	0.03719	0.03688	0.0381
2.160	0	0	0	0	0	0.03505	0.03597	0.03627	0.03597
2.400	0	0	0	0.032	0.03353	0.03383	0.03444	0.03444	0.03444

**Vegetation Density 2.5%**

x\y	0.060	0.120	0.180	0.240	0.300	0.360	0.420	0.480	0.540
0.000	0.03139	0.032	0.032	0.0317	0.03109	0	0	0	0
0.240	0.03078	0.0317	0.03139	0.03109	0.03139	0.03109	0	0	0
0.480	0.02987	0.02987	0.02987	0.02987	0.03048	0.03109	0.03109	0.03109	0.03109
0.720	0.03018	0.03139	0.03078	0.03078	0.03139	0.0317	0.032	0.03139	0.032
0.960	0.0317	0.032	0.03261	0.03261	0.03292	0.03261	0.03292	0.03261	0.03261
1.200	0.03231	0.03261	0.03261	0.03231	0.03231	0.03261	0.03292	0.03231	0.03261
1.440	0.03414	0.03322	0.03261	0.03292	0.03322	0.03292	0.03353	0.03261	0.03353
1.680	0.03353	0.03292	0.03231	0.032	0.03231	0.03261	0.03292	0.03261	0.03231
1.920	0.03383	0.03292	0.032	0.0317	0.032	0.03292	0.03292	0.03231	0.03231
2.160	0.03139	0.032	0.03292	0.03292	0.03231	0.03231	0	0	0
2.400	0.03109	0.03109	0.0317	0.03139	0.03139	0	0	0	0



**Vegetation Density 0.6%**

x\y	0.060	0.120	0.180	0.240	0.300	0.360	0.420	0.480	0.540
0.000	0.0256	0.02621	0.02652	0.02591	0.02591	0.0256	0	0	0
0.240	0.02438	0.02469	0.0253	0.0253	0.0253	0.02621	0.02621	0.02621	0.02621
0.480	0.0253	0.02621	0.02591	0.02682	0.02652	0.02652	0.02682	0.02682	0.02652
0.720	0.02591	0.02621	0.02682	0.02682	0.02652	0.02682	0.02682	0.02682	0.02652
0.960	0.0256	0.02591	0.02652	0.02621	0.0256	0.02621	0.02621	0.02591	0.02621
1.200	0.02713	0.02652	0.02621	0.02621	0.02652	0.02652	0.02713	0.02682	0.02682
1.440	0.02652	0.02621	0.0256	0.0253	0.0256	0.02591	0.02652	0.02652	0.02621
1.680	0.02713	0.02621	0.0256	0.0253	0.0256	0.02682	0.02652	0.02652	0.02652
1.920	0	0	0	0.02469	0.0256	0.02713	0.02713	0.02713	0.02682
2.160	0	0	0	0	0.02652	0.02652	0.02713	0.02652	0.02682
2.400	0	0	0	0	0	0	0	0	0

**Vegetation Density 0.2%**

x\y	0.060	0.120	0.180	0.240	0.300	0.360	0.420	0.480	0.540
0.000	0.02164	0.02195	0.02256	0.02225	0	0	0	0	0
0.240	0.02225	0.02316	0.02347	0.02408	0.02347	0.02286	0	0	0
0.480	0.02195	0.02286	0.02164	0.02316	0.02347	0.02347	0.02377	0.02408	0.02408
0.720	0.02316	0.02377	0.02408	0.02408	0.02438	0.02469	0.02469	0.02499	0.02499
0.960	0.02469	0.0253	0.0256	0.0256	0.02591	0.02591	0.0256	0.02591	0.02743
1.200	0.02499	0.0253	0.0256	0.0256	0.02499	0.0253	0.0256	0.0253	0.02652
1.440	0.02652	0.02591	0.0256	0.0256	0.0256	0.02591	0.02621	0.02591	0.02621
1.680	0.02591	0.0256	0.0253	0.02499	0.02499	0.0256	0.02621	0.02621	0.02652
1.920	0.02621	0.0253	0.02499	0.02499	0.0253	0.02652	0.02652	0.02621	0.02621
2.160	0	0	0	0	0.0253	0.02652	0.02652	0.02652	0.02591
2.400	0	0	0	0	0.02408	0.02591	0.02621	0.02591	0.0256





Vegetation Density 0.04%									
x\y	0.060	0.120	0.180	0.240	0.300	0.360	0.420	0.480	0.540
0.000	0.02042	0.02073	0.02134	0.02103	0.02042	0	0	0	0
0.240	0.02103	0.02164	0.02195	0.02256	0.02256	0.02256	0.02316	0.02316	0.02347
0.480	0.02042	0.02103	0.02134	0.02103	0.02134	0.02195	0.02195	0.02256	0.02195
0.720	0.02134	0.02195	0.02225	0.02195	0.02256	0.02286	0.02347	0.02316	0.02347
0.960	0.02256	0.02316	0.02347	0.02408	0.02408	0.02377	0.02377	0.02408	0.02377
1.200	0.02286	0.02347	0.02347	0.02347	0.02347	0.02377	0.02377	0.02377	0.02377
1.440	0.02438	0.02408	0.02377	0.02377	0.02377	0.02438	0.02438	0.02438	0.02469
1.680	0.02408	0.02316	0.02347	0.02347	0.02286	0.02347	0.02438	0.02438	0.02438
1.920	0.02469	0.02377	0.02316	0.02316	0.02347	0.02438	0.02469	0.02438	0.02469
2.160	0.02408	0.02347	0.02286	0.02256	0.02377	0.02499	0.02499	0.02499	0.02499
2.400	0	0	0	0	0.02591	0.02987	0.02682	0.02652	0.0256

Vegetation Density 0.0%									
x\y	0.060	0.120	0.180	0.240	0.300	0.360	0.420	0.480	0.540
0.000	0.02225	0.02195	0.02195	0.02195	0.02134	0.02103	0.02164	0.02195	0.02225
0.240	0.02256	0.02256	0.02286	0.02286	0.02347	0.02316	0.02377	0.02408	0.02438
0.480	0.02012	0.02042	0.02042	0.02042	0.02073	0.02103	0.02164	0.02195	0.02195
0.720	0.02073	0.02103	0.02103	0.02103	0.02225	0.02164	0.02256	0.02256	0.02286
0.960	0.02195	0.02286	0.02286	0.02316	0.02316	0.02377	0.02347	0.02377	0.02316
1.200	0.02286	0.02316	0.02316	0.02316	0.02286	0.02316	0.02347	0.02347	0.02347
1.440	0.02408	0.02377	0.02316	0.02347	0.02347	0.02377	0.02408	0.02377	0.02438
1.680	0.02347	0.02316	0.02286	0.02286	0.02256	0.02316	0.02408	0.02408	0.02377
1.920	0.02377	0.02316	0.02256	0.02256	0.02316	0.02408	0.02408	0.02377	0.02377
2.160	0.02256	0.02164	0.02073	0.02195	0.02225	0.02438	0.02408	0.02347	0.02347
2.400	0.02316	0.02286	0.02225	0.02286	0.02316	0.02469	0.02499	0.02469	0.02438



Static water depth in the centerline of the flume ( $y=0.3$  m)

$x \backslash y$	0.300
0.00	0.0125
0.24	0.01463
0.48	0.01402
0.72	0.01646
0.96	0.01615
1.20	0.01585
1.44	0.01646
1.68	0.01615
1.92	0.01737
2.16	0.01737
2.40	0.01829

\* NATIONAL AGRICULTURAL LIBRARY



1022537667